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PROCEDURE OF ELECTION IN CERTAIN CASES OF ENLARGED PROSTATE.*

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The prostatic comes to us under such a variety of conditions as regards himself, his prostate, his bladder and his kidneys as to render any routine plan of treatment, whether palliative or radical, quite manifestly absurd. It is therefore, not altogether surprising that the list of methods and operations more or less lauded for the relief of these sufferers is a very long one, including procedures most ingenious, curious and even parodoxical.

Doubtless some of the more indirect methods of proposed relief are more interesting to enthusiastic surgeons sustained by hope and the spirit of discovery than productive of actual relief to humanity. Yet there is little doubt that most of the more than a score of different procedures have some merit in different cases. This profusion of surgical resource; or, if you prefer, this great variability in the *tout ensemble* of individual cases of prostatism, is exceedingly embarassing, since it is given to few to acquire much skill and experience in the application of a multitude of methods.

It is not the purpose of this paper to attempt any general or exhaustive study of prostatism, certainly not to advocate any operation generally applicable to this exceedingly variable though common symptom-complex: but rather to elicit discussion as to the wisest advice to give and the best course to follow in a certain small class of these sufferers, and perhaps incidentally to emphasize a fact which we all know, but too often forget, viz., that in the very nature of the case, no method of treatment, especially no operative treatment, can be generally applicable against prostatism, in which the central fact of obstructed urination is about the only factor strictly common to all the more or less complex disease problems before us. Indeed, even this factor is not absolutely common to all cases, since there are prostatics with no appreciable hypertrophy, but only general senility and susceptibility to pelvic congestion.

In perusing the literature on this subject, one is struck by that old frailty of human testimony, viz., that all plans cure or appear very satisfactory in the hands of writers—ligation of the internal iliacs, castration, vasectomy, tied in catheter, Bottini, and all. This should lead us to suspect that the writers for the moment forget the clinical course of prostatic disease. We are so often told that after a certain operation the patient urinated with facility and without pain, the frequency decreased from every hour to every two, three or four hours, and the patient was living on in more or less urinary comfort when last seen ten days or ten years subsequently. This artless testimony is given with as much assurance as if such had not been very much the course of the average prostatic for ages. At times other facts and fancies, supposed to be more clinching, are added by those pluming themselves on exact scientific methods, rectal touch, mensuration per urethram, and even photographs of the parabola of the stream in its course from the meatus to the *pot de chambre*, are submitted as proofs beyond question. Such pains are rendered quite unnecessary when it is remembered that certain phenomena of prostatism are due to congestions and that the fact has been more or less understood and observed by clinicians since long ago.

From such data in conjunction with a score of years' observation of not a few of these cases, it seems fair to assume, in general terms: 1. That for many prostatics operative interference is not necessary nor desirable. 2. That a certain degree of betterment, after operation, in many cases is not necessarily a recommendation of the treatment. The general impressions of experienced men as to the benefits of these procedures is valuable, but the usual recital of case reports is practically worthless. 3. Taking absolutely all prostatics into consideration, if we were limited to a single method of treatment, and that be applied with reasonable skill, no one wishing the greatest good to the greatest number could fail to choose a scientific use of the catheter, aided alone by rational hygienic and physiologic management, and not operative treatment. In a certain considerable percentage of cases it is as yet the undoubted method of choice. Many of its failures are due to want of skill in its use, or carelessness or blunders of the patient or his advisers.

A second considerable class of prostatics, with decided and persistent mechanical obstruction with various complicating infirmities presents more or less knotty problems undoubtedly open to discussion, while a third class—relatively not very large—with large obstruction, with few complications, and relatively young and sound bodies, seems to me to present the clearest type of enlarged prostate from a surgical standpoint. It is this last class which I wish to especially consider.

The primary lesion, so to speak, of prostatism, is the development of nodules and even of considerable tumors, the appearance and behavior of which have long impressed practical men as remarkably similar to the so-called uterine fibroids. Velpeau described them as fibromyomata of the prostate. Sir H. Thompson drew a most brilliant parallel between these prevalent growths of the uterus and its homologue, the prostate. The histologists and sticklers for strict classifications based on microscopic appearances have raised more or less ob-

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jections thereto, though admitting that the chief bulk of such nodules and tumors is of fibromyomatous character. The fact that there is a glandular nucleus has troubled their minds bent on formulation, led to confusing classifications, and inspired unsatisfactory theories—notably that of the French school, that it is a more or less general dystrophic sclerosis—and generally befogged the subject.

Now let me ask any practical man who has opened a large number of bladders in prostatics, for one purpose or another, e.g., to remove complicating stone, to establish temporary or permanent drainage, to enucleate the prostate, etc., what have you almost regularly found? Secondary conditions vary very greatly, but one condition, and that the central one, is remarkably constant, viz., nodules have formed in the lobes of the prostate, and in their development they show a tendency to spontaneous enucleation; and precisely as in the uterus, they develop in the direction of the least resistance. For sufficient anatomic reasons, in the vesical neck this direction is upward and backward into the bladder; displacing and distorting the posterior urethra; elevating the outlet above the base of the bladder; disturbing the direction and the equilibrium of the power of expulsion. Naturally there is more or less irregularity and want of symmetry in the development of these nodules. Very exceptionally they may become quite pedunculated, be mesially situated, or even develop chiefly toward the rectum. Yet after the endless and time-honored discussions of middle lobes, unilateral hypertrophy, etc., the practical surgeon must be surprised to find how generally the whole prostate, and especially the sides and base, are projected upward and backward into the bladder, and how rarely the long discussed interurethral bar, median lobes, intraprostatic and other literary forms come to view. Now it is generally known and admitted that these nodules tend to become more or less enucleated, and that this tendency with few exceptions is toward the bladder. In many cases they are covered on the vesical side only by the mucosa and a thin layer of fibrous tissue as a capsule, after dividing which they may be dug or shelled out with the fingers with more or less ease. Again, in some cases these growths are comparatively of more or less rapid development, and appear in men still not old, and well preserved. The problem is chiefly one of very badly obstructed urination, by a very considerable upheaval of the sides and base of the prostate, with a bladder and the general organism relatively sound.

As the briefest method of indicating the class of cases which I have just now in view, a detailed account of the following case may be expedient:

CASE 5.—Jan. 20, 1899, J. M., referred to me by Dr. Manley, came under observation. He had been a healthy, hard-working man until the preceding six years, since which he had lived with his sons, without any regular employment. About five years ago, after a long period of slight disturbances of micturition, such as rising at night, loss of force at the end, some frequency, etc., to which he paid no attention, he had retention with overflow. After a brief use of the catheter, he recovered sufficiently to dispense with it for six months. From that time—1½ years ago—until now, the obstruction to urination has progressively increased until he has had to resort to the catheter more and more. With constant difficulty in urinating, he was subject to attacks of complete retention at short intervals. Sometimes a single catheterization, sometimes its regular use for a week or two enabled his bladder to resume its function in a crippled way. Latterly he had to use the catheter most of the time, and while the instrument *en gomme* passed without much difficulty, it caused considerable irritation and pain, and frequently drew blood.

On examination, the patient appeared sound for a man of his years, though a little haggard and reduced in flesh from pain and loss of sleep for the past three weeks; arteries a little hard; digestion usually good. The urine was clear—49 oz.—sp.gr. 1022; acid; no albumin nor casts; a few blood-corpuscles and leucocytes.

On rectal palpation, the prostate appeared very large and firm in all its dimensions. Exploration with a flexible bulb sound indicated the prostatic urethra lengthened to at least 7 cm., and its central end greatly displaced upward; a rigid bladder sound was not admitted, because of obstruction after entering the prostatic urethra for about an inch. The bladder held about 6 oz. of boric acid solution without resistance, and nearly 2 oz. more would be injected under slight pressure, when the bladder expelled it all in a good stream through the catheter—all indicating the bladder to be competent when the obstruction is relieved. Without the catheter most of the fluid is evacuated under favorable conditions, after much difficulty and several attempts at starting and stopping.

The patient was observed for two weeks and prepared by proper diet, regulation of the bowels, careful use of the catheter, and lavage of the urethra and bladder. No attempt at cystoscopic examination was made, as introduction of stiff instruments was difficult, and the condition seemed—for practical purposes—very clear.

On February 2, epicystotomy was done under chloroform, the bladder distended moderately with air in a moderate Trendelenburg posture. The bladder wall was readily reached, transfixed with four stitches, and incised to admit three fingers. A large horse-collar-shaped tumor projected upward and inward around the internal urethra, with a pocket 3 cm. deep behind it; the bladder was not trabeculated. On the right of the mesial line the mucosa was incised slightly from the meatus, back to and a little over the edge of the growth. Bleeding was brisk for a moment until the fingers were insinuated, and a mass the size of a pullet's egg readily enucleated. Pressing farther forward under the urethra, another about one-half as large was soon turned out. The blood was wiped away and bits of iodoform gauze pressed into the cavity, when the same procedure was repeated on the opposite side. As soon as the hemorrhage was sufficiently checked by gauze and a few moments' pressure, a sound was passed by the urethra and the bladder cleared and examined. The large sound met with no resistance and passed readily into the bladder. The considerable tumor had disappeared, and the beak of the sound rested on the bas fond. Though the hemorrhage was now but slight, a large and long tape of iodoform gauze was carried down into the vesical neck and packed snugly into it until the space occupied by the enucleated mass was obliterated, then the end brought out through the suprapubic wound. The bladder wound was then closed about one-half, and swung up to the anterior abdominal wall with the silkworm gut suture, which closed the upper and lower angles of the abdominal wound so that no leaking could take place into the prevesical space. The remaining bladder opening was temporarily stitched to the skin.

Two short bladder drains with smooth ends, and side and end eyes, were carried to the bas fond, the surroundings well powdered with boric acid, and all covered with large pads of sterilized gauze to absorb the urine. A nurse changed these pads as fast as they became saturated. To save expense—especially after the third day—after use they were well rinsed, soaked in 1 per cent. creolin solution, wrung out, steam sterilized, dried and re-used. Every four hours the bladder was irrigated through the tubes with warm boric solution. After forty-eight hours the gauze tape was withdrawn. The urine, at first blood-tinged, soon became clear. There was little shock, no fever, moderate pain. The skin was never irritated by the urine, and the patient was up on the eighteenth day. He was then allowed to go about with the temporary suprapubic opening until March 14, when under a brief morphin-chloroform anesthesia, the bladder wall was loosened up from the skin and muscle, carefully sutured with catgut, and the abdominal wall enclosed, except at a small point to guard against possible leakage. A catheter *a demure* was left in for three days, after which he was allowed to urinate naturally.

The wound healed well and the patient left the hospital on March 24. On April 4 he reported for examination. He had gained in weight and appearance, and said he never felt better; had no pain nor difficulty in urination, though the latter was a little frequent, as he usually had to rise once, occasionally twice, at night; empties the bladder completely, and the urine is clear and normal.

The indications were a large, hard prostatic hypertrophy, chiefly intravesicular, a subject relatively sound for his age, a bladder with competent walls when relieved of obstruction at its outlet, and not seriously infected.

The operation was wholly suprapubic, with temporary drainage: 1. Because this class of growths may be best and sufficiently removed by this route. 2. While there are objections to the suprapubic drainage—chiefly the necessity of a secondary closing, and a second anesthesia—it is far better and safer against the two exigencies which necessitate drainage by one route or the other, viz., sepsis or hemorrhage. The latter is, I believe, absolutely under control by this method, while sepsis and urinary infiltration are much better prevented by an open bladder, allowing, if need be, constant irrigation, and thorough cleansing. It is quite possible to do the second operation without a general anesthetic if desirable. The result is a very nearly perfect restoration of the vesical function, which must be permanent, as far as the prostatic obstruction is concerned. In such cases—and they have not in my experience exceeded 5 or 6 per cent. of the prostatics who seriously appeal to us for aid—they present a fairly definite and as yet little complicated surgical situation. Theoretically, and I believe practically, there is but one rational procedure which can promise anything like a cure or even decided relief from a distressing and very threatening malady which is practically certain, soon or late, to end through various complications, in disaster, viz., to remove the obstructing tumor. It is just possible that orchidectomy, vasectomy, deligation of iliacs, and the various indirect methods, surgical and medical, may in some cases give some improvement, but that anything like a complete raising of the urinary blockade will follow is as unreasonable to anticipate as analogous methods have been proven to be in uterine fibromyomata. It is passing strange that after such means have been proven fallacious in the one case, their one-time-asserted successes are revamped in exaggerated form to do duty for male castration. However, whatever may be the result in some instances, I know from personal observation that in many cases these operations do not appreciably affect the situation or the actual intravesical enlargement in any practical way.

Surgery which may or may not prove of any benefit appeals little to the patient and less to the conservative, responsible practitioner. That burning or cutting channels through such a mass may greatly lessen the obstruction is quite evident, but that it will radically relieve this class of cases and completely restore the vesical function does not appear rational, and in any event appears more dangerous and disagreeable than open extirpation.

In a relatively sound man, even of advanced years, especially with uninfected urine, a skilfully-executed suprapubic cystotomy is not a procedure of much danger. Experience has shown the prostate and bladder to be strangely tolerant of surgical interference. Hemorrhage, though sometimes troublesome at first, from the veins in and beneath the mucosa, is primarily not serious, and its secondary control absolutely and easily at our command by various methods of gauze packing (Keyes and others). Sepsis would seem to be the greatest danger, but an open bladder constantly drained and, if desired, frequently irrigated, gives the greatest guarantee against it, I believe far greater than perineal incision and drainage, which we know to be safe in comparison to slight injuries of the deep urethra or vesical neck.

I believe that for these selected cases, a skilled technic will reduce the mortality of suprapubic prostatectomy very materially below 10 per cent., which is not a great sacrifice for real relief in the face of so dangerous and distressing a situation.

In about 150 cases of enlarged prostate, I met with but nine cases which seemed to me to be prime cases for enucleation, and in which it was strongly advised: Five submitted, with the following results:[1]

CASE 1.—J. W., aged 62, for four years has had increased difficulty in urinating, with a catheter life for the past year. During the past three months there has been increasing difficulty in catheterization. His health has been excellent aside from his urinary difficulty; bladder irritable; urine 1600 c.c., sp. gr. 1025, acid, no casts, no blood cells; no renal lesions. December 3—suprapubic enucleation was done, with the result that up to three and one-half years later there was good health, but urination at times a little frequent. For about one year after operation the bladder showed some irritability, could not hold urine more than three or four hours, but there was no pain nor need of the catheter.

CASE 2.—P. H., aged 58, for the past two years has had great difficulty in urinating, many attacks of retention, very difficult catheterization. His general condition was good; little secondary changes in the bladder, which was large and capacious, urine practically normal. Feb. 6, 1894, suprapubic enucleation of prostatic growths was performed. Recovery followed with good health and practically no urinary disturbances to date.

CASE 3.—W. F., aged 67, has had slight symptoms for eight or ten years, but no great trouble until the past year, since which a catheter has been necessary much of the time. The organ was sound for one of his age. There was slight catarrhal cystitis, which nearly cleared up by three weeks' preparatory treatment. The kidneys were apparently healthy. In March, 1894, suprapubic

[1] Case 5 is given above.

enucleation was performed. The result was recovery and urinary condition satisfactory when last heard from, two years after.

CASE 4.—J. H., aged 60, has had difficulty in urinating, for three years; the past year and a half frequent retention and use of catheter. His general condition has been fair, urine normal in amount, acid, frequently very bloody, especially for the past six weeks. In June, 1896, suprapubic enucleation brought about recovery, though he is still subject to occasional spells of frequency, but there is never any difficulty in completely emptying the bladder, and no pain.

Of the four who declined, I have been able to follow the further course of two. One, after thirteen months' suffering submitted to suprapubic drainage, severe cystitis, phosphatic concretion and renal complications, having reduced the patient to a miserable state and rendered radical operation out of the question. This gave relief for fifteen months more, when he succumbed to urinary sepsis. The other lived only six months, dying, I am informed, as the result of urinary disease. Both of these men were choice subjects for prostatectomy at the time it was advised, as the bladder was not yet infected in either case. The prostatic growths were large, the obstruction rapidly progressive, and the patients otherwise very sound men.

When senile degeneration has rendered the patient surgically *hors de combat*, or when repeated profound infections have crippled the upper urinary apparatus, as is the case in the vast majority of prostatics, in clinic, palliation rather than cure is the only reasonable aim. Cure is no more possible than rejuvenation. True, Brown-Séquard sought to find a measure of rejuvenation in testicular extract; and since, White has proposed to reduce prostatic congestion and bring about atrophy by removing the already failing source of the so recently discovered and quickly forgotten elixir of life, it is not my purpose to discuss this procedure further than to state that I know little to recommend it except that many excellent observers seem to think well of it. If they continue to do so for ten years, I shall be surprised. For the present the conservative practitioner must regard these indirect operations as largely experimental, and for my part, I prefer in incurable cases where the obstruction overshadows the other elements in the case, the establishment of a permanent suprapubic drainage (McGuire, Poncet, etc.), which gives grateful relief. Possibly in some cases Bottini's method may prove useful, though I have no experience with it. Lastly, let us not forget, in our much ado about operations, the comparatively vast usefulness of non-operative management of prostatics. There is undoubtedly merit in the views of Guyon, the unexcelled master and brilliant teacher, that vesicorenal sclerosis is at the bottom of prostatism, only he seems to carry his theories a little too far. Yet it is true that in most cases the prostatic obstacle is not all. Only in rare cases is it merely the single difficulty to be vanquished. In not a few prostatics the hypertrophic growth is quite insignificant as compared with other factors. Indeed, there are subjects without distinct prostatic hypertrophy, whose arteries are sclerotic, whose micturition is feeble and slow, with nocturnal irritability, and a great susceptibility to pelvic congestions and prostatic engorgements. No operative interference can much, if at all, benefit such sufferers.

There are prostatics who, by a little judicious aid and advice, pass through years of comfortable life, with one, or two, or a few retentions. I recall one relieved for two years by a single aspiration of the bladder. Another, carefully catheterized for two weeks, has been getting on without accident or serious discomfort for four years. Scores of cases more or less under observation from three to fifteen years have had their ups and downs after indiscretions, blunders and criminal carelessness, of their own and their at-random-sought advisers, some with periods of intense suffering it is true, but most of them with considerable periods of comparative comfort. Occasionally one drops out directly as the result of his urinary disease, after from five to twenty years' struggle, but how rarely it is we see this except as the result of the grossest transgressions of the simplest laws of sense and surgery—a chronic retention not relieved aseptically, slowly and interruptedly, but septically and suddenly, the oversight for years of complicating stone, the nagging of the bladder by overdistension, septic and bungling catheterization by faulty instruments in ignorant hands. The average prostatic is indiscreet in eating, in drinking, careless of exposures and of the causes of congestion, negligent of bowels and bladder, filthy in catheterization, and promiscuous in his advisers. A charming, intelligent and wealthy old gentleman, with the minor disturbances of the prostate, chiefly some frequency at certain times of the day, who never had to use the catheter nor suffered any pain, but who had casts and albumin in his urine, kept along without a real disaster for five years under occasional advice—chiefly hygienic—until in an evil moment he spoke of the matter to a man who was giving him massage occasionally, as a luxury. The officious masseur advised electricity, and introduced an electrode into the urethra. Cystitis and renal trouble promptly began. We were never able to get the urine quite normal or aseptic again, and after two years the old gentleman succumbed to renal disease and urinary infection.

With few exceptions, the deaths which I have observed at all directly due to enlarged prostate were traceable to very gross mismanagement on the part of the patient or his advisers. It is the abuse of the bladder by prolonged tension and infection that causes most of the distress and final destruction in these cases, and in large measure this is quite preventable by sense, cleanliness and skilful use of the catheter. It is comparatively frequent to find men who have not urinated without a catheter for months and years finally recover the function of voluntary micturition. The bladder being saved from injurious tension, the hypertrophy in advanced age often shrinks. Indeed, it is ordinarily just the prostatic who has early learned to use the catheter skilfully, who usually surprises us by living ten or twenty years—perhaps carrying his catheter in his hat or cane—exhibiting a tolerance against infection marvelous to behold. Doubtless these patients are themselves largely blameable for their mismanagement, but if the profession at large would take the pains to carefully study the indications in each individual prostatic, and see that they were skilfully, patiently and persistently fulfilled, fewer patients would demand surgical relief, and much needless suffering would be prevented.

STRICTURE OF SMALL INTESTINE.—The abstract of this article, printed in the JOURNAL of December 9, p. 1486, by an oversight in the make-up of the JOURNAL pages, was erroneously credited as appearing, in the original, in the *Berliner Klin. Woch.* The *Mitteilungen a. d. Grenzebeiter der Med. u. Chir.* (Jena) contained the paper from which our abstract was made, this publication being abstracted on p. 1487, the same week.

SPLENIC ANEMIA, OR "BANTI'S DISEASE," COMPLICATED BY DIABETES MELLITUS.

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In the *Medical News* of March 27, 1897, I reported several cases illustrating grave changes in the blood. One of these, it will be recalled, was a man aged 24 years, who had a negative family history and a personal history that he had had double pneumonia in 1894, and in the same year had fallen a distance of thirty feet while working in a mine, sustaining as a result of this fall severe injury to his head and neck. He was admitted to the Jefferson Hospital in 1895, with the statement that in July of that year he had begun to suffer from severe pain beneath the clavicle of the left side, this extending downward into the left hypochondria[1]. He was exceedingly pale, his conjunctivæ yellow, and the spleen enormously large. The urine was entirely normal. Later on, an examination of his eyes, by Professor de Schweinitz, revealed hemorrhages in the retina of each. An examination of his blood, a detailed record of which will be found in the *News* as above mentioned, revealed the fact that he had a very great excess of lymphocytes, although the total number of leucocytes was about normal. For a period of two years his leucocytes varied from 8000 to 4000, usually averaging about 6000. But his lymphocytes, on Dec. 25, 1895, were 84 per cent.; the mononuclear cells, 4 per cent.; the polynuclear cells, 8 per cent.; and the eosinophiles, 3 per cent. The red cells varied from time to time from 1,000,000 to 2,800,000. As already stated, the spleen was enormously enlarged.

The patient has been under observation more or less constantly ever since his original entrance to the hospital in 1895, and in the *Medical News* of Dec. 24, 1898, I made a further report concerning his condition over and above that already mentioned. In this paper I noted that on Feb. 22, 1898, he gave a history that eight days previously he had a severe attack of nose-bleed, and that his spleen at this time had become painful. The attack of epistaxis became recurrent. His temperature was normal, his pulse 86, his respirations 22. An examination of his urine at this time, as *on all previous occasions, revealed nothing abnormal.* On Feb. 23, 1898, his color index was 1.25; hemoglobin, 40 per cent.; red cells, 1,620,000; white cells, 7000. It was only on making a differential count that the marked difference between his condition at this time and at previous observations became notable, for now he was found to have 58 per cent. of polynuclear cells; 17 per cent. of small lymphocytes; 19 per cent. of large lymphocytes; 2 per cent. of transitional; 2 per cent. of eosinophiles and 2 per cent. of myelocytes. After a considerable residence in the hospital, he left in much better health, and returned in June, 1898, when his polymorphonuclear cells were 66 per cent.; his lymphocytes, 26 per cent.; eosinophiles, 4 per cent.; transitional cells, 2 per cent.; myelocytes, 2 per cent., and in addition it was noted that there were poikilocytes, macrocytes, microcytes, normoblasts and gigantoblasts. His hemoglobin was 25 per cent.; his red cells 1,800,000 and the white ones 7000.

This patient again came under my observation on Nov. 13, 1898, stating that he had been suddenly attacked two weeks before with a profuse flow of urine; that he presented himself at one of the hospitals of this city, where it had been found that his urine contained large quantities of sugar, and when the quantity of his urine and the quantity of sugar which it contained was measured, he found he was passing ten quarts in twenty-four hours, and was told by a homeopath physician who made the analysis that he was passing a pound of sugar a day. When he learned this, he came to my office in order that I might prescribe for him, and I confess that I was decidedly skeptical when he informed me of the quantities of urine which he was passing and the quantity of sugar which he had been told it contained. I therefore directed him to bring his urine to me, and found that he was actually passing 30 grains of sugar to the ounce. As it was not possible for me to have a blood-count made on the day of his visit, I arranged with him to return the next day, but this he failed to do, and I have not been able to find him since that time. He told me on the occasion of his visit that up to the time of the beginning of this diabetic attack he had gained weight considerably, and had been working for a number of weeks in a barber shop where he was constantly on his feet from 7 a.m. till 9 p. m., and that until the glycosuria developed, he had actually gained weight, and was feeling better than he had felt for a considerable period of time.

This patient's condition always improved very greatly when large doses of arsenic were given him, and his periods of relapse were usually precipitated by hard work, exposure, or poor food. By the use of rest, good food, arsenic and various preparations of iron, he was markedly improved in his condition each time that he was under my observation. Aside from the very curious blood conditions which have been present in him, and which made his case decidedly unusual, the onset of such a profound degree of diabetes mellitus is exceedingly interesting. Whether there is any connection between the two diseases, I am unable to state, and so far as I know, no reports are on record in which the two conditions existed side by side.

[1] See photograph of patient, with size of spleen outlined, in the Medical News, March 27, and in the author's book on Diagnosis.

DIAGNOSIS OF INTSTINAL PERFORATION BY MEANS OF ETHER INFLATION PER RECTUM.*

BY E. M. SUTTON, M.D.

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About two years ago I conceived the idea of utilizing ether vapor as a means of diagnosing intestinal perforation, and made some experiments therewith, the results of which were published in the JOURNAL, vol. xxxi, p. 191. I now desire to report a practical application in the case of a gunshot wound of the abdomen.

Mrs. S., on the morning of Sept. 1, 1899, was shot in the abdomen with a 32-caliber revolver, from a distance of about ten feet. The external wound was two inches below and one inch to the right of the umbilicus, taking an upward, inward course through the very thick walls. She suffered from shock, but not severely; after removal in the ambulance, to St. Francis Hospital, and placing her on the operating table, nausea developed. The bowels were then inflated with the vapor of ether and the infiltration continued until the patient belched ether from the stomach—readily recognized by Drs. DuMars and Studer and myself—and the diagnosis of penetrating wound of the abdomen without intestinal perforation was made.

The ball entered the peritoneal cavity, passed above

*Read before the Peoria Medical Society, Sept. 5, 1899.

the liver, injuring the diaphragm, and buried itself in the tissues behind. Clots were removed and further search stopped as very slight pressure on the infiltrated diaphragm caused instant cessation of respiration. The wound was closed and uneventful recovery followed.

I show the apparatus used and think all will agree that the method is practical and simple, being at hand in any locality—a bicycle pump, a bottle, and rubber tubing or catheters answering every requirement of the aspirating set here shown; about ℥ii of ether in the bottle being sufficient for the inflation.

The patient experienced no trouble from the inflation, aside from a sense of fulness, and I feel quite satisfied with the method and ask that it be given a trial in case perforation is suspected or feared. The rectal tube should be passed as high up as may be necessary, the rectum first cleared of feces, if obstructed, and before inflation is started wet gauze should be wrapped about the rectal tube at the anus and firm pressure made to prevent the return of the ether from below. If perforation exists, the abdomen is more quickly distended and the smell of the vapor recognized coming from the injured intestine; otherwise the intestine gradually distends and the vapor reaches the stomach, from which it is eructed and recognized by the smell. All sources of leakage from the apparatus should be carefully recognized and the lower part of the body covered so that the exact location of the ether odor may be determined.

SOME PHASES OF INTRANASAL SURGERY.*

BY G. V. WOOLEN, M.D.

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The development of intranasal surgery is so modern and unique that it is not strange that many are not only unfamiliar with its details, but are likely to misjudge its character and necessities. This distrust is not altogether unmerited. Certain procedures have been suggested and used for a given condition, and through habit, or otherwise, their use has been extended to other conditions without any apparent reason. Enlarged turbinate bodies have been cauterized simply because they were enlarged. Septal spurs have been sawed away because they were spurs, polypi have been removed simply because they were polypi, etc. Such looseness of theory, if such it be, and the practice which has sprung from it, have deservedly led to this distrust. An army of incompetents has sprung up all over the country. Many with little or no preparation are operating indiscriminately.

Anatomic and physiologic as well as pathologic laws should govern every operation. It has seemed to the writer that much confusion and controversy have occurred because of the want of proper consideration of what should be regarded as a normal nose and of the distinction between a temporary and a permanent obstruction or lesion, the one amenable to local and constitutional mediical treatment, the other requiring surgical measures in addition.

An ideal naris has not been described, and indeed can not be, for what might be an ideal one for one person would not be for another, no two persons having nares strictly the counterpart of each other. Nares which would be sufficient for one person would be insufficient for another. The operator, however, should always be able to determine what would be the ideal condition for each individual naris. In a capacious one there may be hypertrophic tissue, or deformed septum, not needing surgical treatment, but enough to greatly block and otherwise disturb another of smaller caliber. Many persons have large noses with small nares, and vice versa. In all nares, however, certain outlines should exist, notably a septum situated more or less perpendicularly and dividing the two nares into equal parts, thinnest in the central region, and thicker near its attachments above and below, thus rendering its sides somewhat concave. The concavity of the septum, matching that of the outer wall of the naris, makes the cavity an irregular oval opening. There should be no deviations or deflections of the septum or spurs or longitudinal projections along the sutures, such as would press on the turbinate bodies or sides of the nares, or would encroach on the capacity of the nares so as to interfere with their functions.

The turbinate bodies springing from the sides of the chamber should begin in comparative nothingness in front, and gradually enlarge to terminate abruptly posteriorly, but they should not be larger at termination than half an inch in front of the termination. The anterior tip of the middle turbinate body is a slight deviation from the others, beginning abruptly; it is thin and overhangs the infundibulum. These bodies should have the characteristic turbined shape, but should in no case impinge on the septum or on each other or so as to press on the outer wall of the naris in the central or posterior regions.

It has seemed to the writer that the chief operative measures in the nares should be for one or more of the following purposes: 1. To restore nasal respiration and relieve disease of the respiratory tract. 2. To aid in the drainage of the nose, or the accessory cavities, or possibly both. 3. To remove pressure irritation. 4. To remove local hyperesthesia. 5. To render local medication possible and successful. 6. To relieve auditory difficulties. 7. To remedy voice difficulties. 8. To remove malignant diseases.

It will be well to examine these purposes individually.

1. *To restore nasal respiration and relieve disease of the respiratory tract.*—The woful want of recognition of the nose as a respiratory organ primarily and chiefly is not confined entirely to the laity. When our anatomists cease describing the nose, in the latter part of their books, as the organ of the special sense of smell, and connect it with the all-important function of respiration, then a large advance will have been made toward a just recognition of its importance and its infirmities.

Man may do without food, raiment, water, sleep, and in fact all of the so-called essentials of life, for an indefinite length of time, but he can not do without breath, except for a minute or two. A study of mouth-

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breathing will soon convince a close observer that one can not secure air enough that way, not to mention the many morbid processes which are brought into existence by it. The mouth is not a breathing organ. Mastication and speech are its associated functions, as respiration and smell are the associated functions of the nose; the first-mentioned function in each organ being the most important. The mouth, unlike the nose, is not endowed with facilities for preparing the air for the lower respiratory apparatus, i. e., moistening and purifying the air and regulating its temperature. If the inspired air is not properly prepared the delicate lining membrane of the lower respiratory apparatus is irritated and spasm or resistance and insufficient inflation result. Therefore, all necessary tests should be made to determine in each case whether the patient is able to breathe through the nose, not forgetting to ascertain especially whether it is able to breathe thus when asleep in the recumbent position, for then gravity loses much of its control over the nasal circulation, and tissues are flooded and swollen which might not otherwise be obstructive. If it is ascertained that the patient does not breathe solely through the nose when asleep, the lower or respiratory tract of the nose should be closely scanned throughout, and the redundant tissue, whatever and wherever it may be, should be so reduced as to allow such freedom of nasal respiration that the patient may sleep with the mouth closed. Thus relief will also be obtained for most of those intractable cases of chronic pharyngeal, laryngeal, tracheal and bronchial disease so often associated with the so-called habit—but in fact necessity—of sleeping with the mouth open.

2. *To aid the drainage of the nose and its accessory cavities.*—Few doubtless know or consider that in health from one to two pints of fluid are discharged each twenty-four hours through the nasopharynx, from the nose and its accessory cavities. The discharge is so liquid as to flow away silently and unobserved, as does the saliva from the mouth. But when the parts secreting this are overtaken with disease, which thickens the secretion, and especially if the parts are obstructed by any of the various forms of proliferated tissue, previously stated, this outflow is arrested, increasing obstruction and distress. This secretion being highly albuminous makes a good culture-medium for bacterial infection, and doubtless is the beginning of other troubles manifested in various ways, as well as an assistant in the production and maintenance of the disorders already noticed.

The process of purifying the air by arresting the various foreign and noxious substances in the mucus, as the insect is caught in the fly-paper, renders this liable to great contamination, and unless it is carried away promptly to the stomach and neutralized by the digestive process, it soon establishes local results in the form of sepsis, which is found so often in a hurtful degree. Any obstruction, therefore, to the drainage of the nose or to the orifices of the accessory cavities should be dealt with in accordance with the accepted surgical rules. Empyema of these cavities now receiving so much attention, not only demands such, but is doubtless at times produced for the want of it.

3. *To remove pressure irritation.*—Much has been written on reflex disease, and not a little of it has been in relation to nasal troubles. No one is prepared to deal with intranasal disease who is not familiar with the normal and nasal sensitiveness amounting in health almost to a state of hyperesthesia. The nose is richly endowed with nerves of sensation, closely resembling in this respect the eye, from whose socket it receives its chief nerve of sensation. The nares are bony cavities, and therefore of a given capacity. They are divided and subdivided by septum and turbinate bodies, but are presumed to be symmetric, as other dual organs, with parts not encroaching on each other. These divisions are distinct, but not capacious. No great derangement of these parts can occur without producing pressure irritation involving sensitive tissues, doubtless already diseased and thereby rendered hypersensitive. We are familiar with pressure irritation of tissues not specially sensitive, producing immediate and remote results. Here, however, we have an exceedingly interesting train of phenomena presented in the character of migraine, supraorbital neuralgia, hemicrania, orbital and ethmoidal pain, basilar headache, asthma, hay-fever, etc., as the result of the pressure of highly sensitive tissues. Whether the explanation be that the process is reflex, or idiopathic, or symptomatic, the fact exists that many of these cases, otherwise uncontrolled for many years, have either been cured or greatly relieved by the removal of offending parts, whether tips of turbinate bodies, projections of septum, spurs or polypi.

4. *To remove local hyperesthetic tissues.*—Closely allied with the condition of pressure irritation, and often blended with it, is hyperesthetic tissue, which, when irritated with highly vitalized pollen, pungent odors, or irritating dust, is goaded into a state of aggravated irritation, leading to the greatest discomfort, often regarded as an acute cold, but more notably recognized in the so-called hay-fever. This tissue may exist, as intimated, without pressure, and may not cause obstruction, but it is always aggravated by such condition. That hyperesthetic areas exist there can be no doubt, and their destruction often cures or greatly relieves these conditions. The cure or relief, however, depends on a most painstaking scrutiny of the nares, especially the anterior region supplied with the nasal nerve, followed if necessary by frequent but not deep destruction of these areas, great care being taken to localize the destruction to the immediate tissue involved.

5. *To render local medication possible and successful.*—Great disappointment has often been met from medical treatment of the nose and nasopharynx, not because of the want of selection of proper medicaments, or of the methods of application, but largely, if not wholly, because the remedies never reached the diseased parts. Cases of this kind probably amount to at least 75 per cent. of those which consult a rhinologist. Why this fact has not been dwelt on more by writers and teachers I can not say, but that it has led to disappointment and unbelief, as to the curability of intranasal disease by many, I am well persuaded. Spraying, douching, irrigating, fumigating, insufflation, unguents, and pigments, even when administered with the modern appliances which have taxed human ingenuity to its utmost, can not reasonably encourage us to hope to reach cavities so inaccessible, if obstructed, as we often find them. Provided the parts can be reached, the difficulties in the therapeutics of this region are not in marked contrast with other parts of the body, and medication should not be specially difficult, unless influenced by an apparently excessive tendency to the development of the hypertrophic process. As this principle of direct application is so much insisted on in other departments of medicine, one would think it would be equally so here. A local treatment, otherwise excellent, will often and necessarily fail for want of its recognition.

6. *To remedy auditory diseases.*—The pneumatic function of the middle ear is carried on through the Eustachian tube. The volume and density of the air delivered through this tube are regulated by the supply through the nose. The tube is simply an adjunct conveying this air to the middle ear, and is controlled by the muscular apparatus situated at its inner orifice, and as we know, acts in concert with the respiratory function of the nose. An absolute essential to the normal function of the ear is its free inflation from nasal respiration. Much of the so-called tubal obstruction from extension of catarrhal inflammation is simply collapse of the tube from want of functional activity as the result of non-inflation. Artificial inflation proves this, but seldom gives permanent relief, the cause not being removed. The rarefied air is forced out and, not being replaced, the colder air tries to enter through the external tube, and the indrawn membrane with all its evil consequences is the result. This is often so markedly true as to be confined to the ear on the side in which alone there is nasal obstruction. Doubtless no results are more conspicuous from intranasal surgery for the removal of obstructions, especially if early attempted, than the relief of various auditory troubles. Whatever may be the view regarding the inception of the process, whether *ab initio* in the ear or by extension of the catarrhal inflammation to the middle ear from the nasopharynx, insufficient inflation of the middle ear soon plays an important rôle.

7. *To remedy voice difficulties.*—The phonatory function of the nasal cavity being such an accessory to the laryngeal element, it becomes doubly necessary that it be relieved of obstructions whenever interference is apparent. The same conditions which disturb the larynx and its auxiliaries also disturb this function, and consequently difficulties of phonation often are removed only by resorting to the same process as for those of normal respiration. To relieve the organ is to relieve its function. Moreover, by the constant irritation and congestion of the laryngeal tissues from mouth-breathing, a condition is established that is inimical to good voice production and is relieved only by removing its cause.

8. *To remove malignant disease.*—This purpose is so apparent that it needs no discussion.

There is not a little clamor about the sacrifice of the mucous membrane in modern intranasal surgery, but it should be remembered that the surgery is for the relief of the conditions mentioned above, and because of the excess of tissue. The hypertrophic process involves the periphery as well as the underlying tissues, all needing reduction in due proportion. The "tunneling of a passage through the nose and sacrificing whatever tissue might be encountered" certainly is "absolutely unjustified," but an intelligent discrimination having regard to the ideal condition of the individual naris should guide the operator as to what and how much should be removed, even though it be a part of the pendulous hypertrophy of the turbinate bodies, with their much vaunted physiologic function.

It may be stated almost axiomatically that a good nose means a good throat, and that idiopathic pharyngitis, laryngitis, tracheitis and bronchitis are delusions, and are consequents of the conditions which have been described.

FORFEIT CONTRACT WITH SPECIALIST.—It is announced in the *Bulletin Medical* that the municipal authorities of Paris have made a forfeit contract with a "specialist," to rid the city of rats before the opening of the exposition, and he is now successfully at work on the sewers.

THE WORK OF THE AMERICAN PHARMACEUTICAL ASSOCIATION IN RELATION TO THE MATERIA MEDICA OF THE FUTURE.*

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On account of the high degree of learning and skill required in its practice and the philanthropic nature of the calling, medicine is classed as a liberal profession. The primary object of medical practice being to discover and remove the causes of disease, and secondarily to cure those who are afflicted, it is also classed as a philanthropic profession.

Because of the great extent of the evil to the community resulting from ignorance and incompetency in the practice of the medical arts, entrance to the medical profession is hedged about with protective laws. Those laws are destined to limit the vocation to persons who are specially educated and trained for the practice. If the actual effects of ignorance, cupidity and pretence could be plainly stated, it would be instantly seen that a vocation in which health and life are at stake is in need of such systematic regulation. The people are quick to see dangers affecting property and recognize the necessity of guarding the public from ignorant and dishonest lawyers, but they are slow to comprehend that there is equal necessity to protect themselves from the charlatans and quacks, and so there are some who consider medical laws as objectionable class legislation.

Pharmacy, or the science and art of preparing medicines, is dependent on therapy, or the science and art of applying medicine to the cure of the sick. It is therefore a branch of medical science, can not be classed as an independent profession, should be in close fraternal relations with therapy and be recognized as a branch of medical practice. It should be conducted in the same liberal and beneficent manner as the practice of medicine, as a liberal and philanthropic profession. Entrance to the profession of pharmacy should be hedged about with restrictive laws similar to those governing the entrance to medical practice. Pharmacy laws should protect the public from ignorance, incompetency and cupidity in the preparation, compounding and dispensing of medicine. These laws should be so constructed and enforced as to regulate and control pharmaceutic practice, forcing those who are engaged in the vocation to conduct it along professional lines. The manufacture and sale of medicines should be strictly limited to educated pharmacists.

Materia medica is the name given to the collection of substances used in the treatment of the sick. It is self-evident that these agents should be so prepared as to fit them in the highest manner for the purpose for which they are intended. Recognizing this fact, the medical and pharmaceutic professions assemble in congress once in ten years for the purpose of revising the list of medicinal agents prescribed by physicians, and determining how best to prepare them for use. This list is called the "Pharmacopeia." A pharmacopeia is defined as an authoritative list of medicinal substances, with definitions, descriptions, or formulæ for their preparation. The necessity for authoritative standards to define the character, establish the purity and regulate the strength of medicines, is recognized by all civilized nations. Countries having no national pharmacopeia adopt the standard of other countries, or supply standard phar-

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macopeial works for the same purpose. The pharmacopeias of all nations, except those of the United States, Mexico, Chili and Greece, are issued under the authority of the respective governments, and therefore partake of the nature of laws. The "United States Pharmacopeia" was originally devised, and is decennially revised, by a committee appointed from the professions of medicines and pharmacy. It should be a truly representative list of drugs and preparations employed in therapeutics.

Before a medicinal agent can be made official in the "United States Pharmacopeia" it must conform to the requirements of medical science, which are that each drug, chemical and preparation shall bear a name which shall belong to and identify it; shall mean the particular thing, kind and variety of it, and nothing else, and the name shall belong to the common language and not be the private property of any individual, firm or manufacturing house. Science also requires that exact knowledge of the substance shall be published in language sufficiently explicit to permit of its complete recognition. In relation to preparations of drugs and chemicals, a complete knowledge of ingredients, percentage-composition and method of preparation must be published, so as to permit their duplication at any time by those skilled in the art of pharmacy and chemistry. Unless these requirements are complied with there is danger that the pharmacy of the preparations may become a lost art, and the preparations themselves finally disappear altogether. The effect of this on the literature of medical science would be to make such literature to that extent unintelligible to future generations. Medical science demands that the literature of therapeutics should be protected from any such danger, so that physicians a thousand years hence reading the same may know what is meant by the names referring to medicinal agents used in treating the sick by physicians of the present day. If we fill our medical journals, text-books and pharmacopeias with meaningless terms claimed as the private property of individuals or firms, we will deservedly draw down on us the contempt of future generations.

The practice of pharmacy as a profession, in the meaning of that word as understood by the medical fraternity, is impossible except under restrictive laws which shall prevent anyone from employing commercial methods in its conduct. By commercial methods I mean to include secrecy either as to source, nature, composition or method of preparing medicinal agents, and the creating of a demand by circulating advertising matter in contradistinction to scientific matter. By advertising matter I mean *ex parte* or one-sided evidence intended to create a demand regardless of the true therapeutic merits of an agent compared with other therapeutic agents employed for the same purpose. It is said that in case such restrictive laws are presented to our lawmakers for consideration, the opposition will not be confined to the manufacturers of secret nostrums or the daily newspapers, but will also come from sources from which many would expect the strongest endorsement. Be this as it may, we must admit that the medical profession and the medical press are not free from fault in the matter. Physicians should not habitually prescribe medicinal agents which do not conform to the requirements of science, and the medical press should educate the profession to know what those requirements are and aid in enforcing them. That the press has neglected its duty in this regard no one who has had experience as a medical journalist will attempt to deny.

As pharmacy can not conform to scientific and professional requirements until the members of the medical profession discriminate, in prescribing, between medicinal agents known to science and those which are not scientifically defined, it stands to reason that the ado raised about commercialism in pharmacy is not only absurd, but savors somewhat of hypocrisy. In the light of the above it is idle for the profession to say that "while it is true that many of the agents prescribed are unknown to science, their active ingredients and their quantitative proportions have, according to the statements of their manufacturers, been published with sufficient exactness to enable physicians to prescribe them in a proper manner, and the method of manufacturing them concerns us not." But it does concern us, for, although many of the articles belonging to this class are valuable medicinal agents, yet, until their working formulas are published and standards established for their identity and purity, they cannot be made official in the Pharmacopeia, for they do not conform to scientific requirements.

It is evident that it will be a long time before the ideal can be realized in which the medical profession is sufficiently educated in pharmacy to discriminate between what may be classed as scientific pharmaceuticals on the one hand, and medicinal agents monopolized by secrecy on the other; in which the pharmaceutic profession ceases to conduct its vocation as a commercial business and carries it on as a liberal profession; in which the public is sufficiently educated to pass and enforce laws preventing anyone from practicing pharmacy as well as therapy unless properly educated and trained for these vocations; and in which the professions themselves shall take measures to expel from their ranks those who practice therapy and pharmacy unworthily. Yet in the meantime a step in the right direction can be made by sending to the next convention for revising the Pharmacopeia, which meets in Washington, in 1900, a representative delegation of physicians and pharmacists who shall make the next Pharmacopeia truly representative of the materia medica by adding to its pages many things which are extensively prescribed, and leaving out a great deal of matter which is no longer of sufficient value to be retained.

It is idle for the medical and pharmaceutic professions to say that a great many of the medicinal agents now extensively prescribed do not conform to the requirements of science, and therefore can not be made official in the "United States Pharmacopeia," for the combined professions have sufficient power to force all manufacturers of medicinal agents to conform their preparations to scientific and professional requirements. Moreover, it is a duty which the professions owe the public and, if it is properly done and the next Pharmacopeia becomes what it should be, the public will begin to realize the importance of proper legislation on this account.

Owing to the rapid strides of knowledge and the constant additions to the materia medica resulting therefrom, ten years is a long time to wait for the revision of the Pharmacopeia; and it seems to me that the committee on revision could serve the professions by publishing a year-book, in which should appear all those additions to the materia medica which conform to scientific requirements, as they are made from time to time. By so doing physicians and pharmacists would have some means of knowing what progress is being made in the knowledge of materia medica. It would not be necessary for physicians to prescribe anything

not listed in the year-book, except it be for the purpose of original research of some of the newer things before they appear in the year-book. But such prescribing should be the exception and not the rule.

The American Pharmaceutical Association endeavors "to encourage such proper relations among druggists, pharmacists, physicians and the people at large, as may promote the public welfare; to improve the science and art of pharmacy by diffusing scientific knowledge among apothecaries and druggists, fostering pharmaceutic literature, developing talent, stimulating discovery and invention, and encouraging home production and manufacture in the several departments of the drug business; to prevent, as far as practicable, the evils flowing from deficient training in the responsible duties of preparing, dispensing and selling medicines; to suppress empiricism, to restrict the dispensing and sale of medicines to regularly educated druggists and apothecaries, and to uphold standards of authority in the education, theory and practice of pharmacy." These objects, stated in the Constitution of that Association, if carried into effect, would bring the medical and pharmaceutic professions under one flag—the flag of science and professionalism, and convert the practice of pharmacy into a liberal profession as a branch of medical practice auxiliary to the practice of therapy. Harmonious fraternal relations would be established between physicians and pharmacists, and secrecy as to the composition or method of manufacturing medicines would come to an end. Therefore, what I have just advocated is in line with the work of the American Pharmaceutical Association as described in its constitution.

For several years past that Association has been making special efforts to carry out its high ideal. A committee on national legislation was appointed for the purpose of making a special study of some of the laws affecting the relations of pharmacy to medicine and the pharmacist to the physician. As chairman of that committee I beg to call your attention to this work, with the view of asking your aid in our effort to make pharmacy of the future what it should be, viz., a branch of medical science.

DO WE OBEY THE CODE OF ETHICS.*

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The laws of ethics are as firmly fixed in the nature of things as are the laws of astronomy or of chemistry. Disobedience to their mandates is as certain to bring disaster to those who disobey as disregard of the law of gravity brings pain and suffering to those who try to walk over a precipice. Every true law of ethics is fundamentally fixed in the make-up of society and is in no sense a mere empiric order of things without adequate reason. Whenever we disobey such a law we do so at our peril. Good conduct is conduct that comports itself in such a way as to lead to the highest social good. It is conduct that harmonizes with the best interests of society. When certain lines of conduct are interdicted by our fellows we may be quite sure that it is now, or at some time in the past was, against their highest accepted interests. At one time in the history of the world it was considered a great wrong to take interest for the use of money. Then it was a decided evidence of unethical selfishness, because society was so constructed that whoever had an excess of money was unable to himself use it. To withhold it from a friend was an act like that of the dog in the manger, who could not eat the hay himself and would not let those who could. As society is now constructed, money is in constant demand, and every person can use all he gets hold of. When interest is now demanded it is merely to make good to the owner the highest possible amount he would be likely to realize on it should he undertake to use it himself. To ask him to lend it to you without interest would be to ask him to give you that which would injure himself, and this, it is evident, would be decidedly unethical. This is but one of a multitude of cases that could be given where social changes make what appears to be the same act ethical in one age that was decidedly unethical in another. The bad ethics of the thing was not in the act but in the spirit and conditions that existed when the act was committed. To charge interest among nomads and other partly civilized races is decidedly against the social good. To charge interest in a highly civilized community encourages investment and leads directly to the public good. There are some misguided people who fail to appreciate the fact that changed conditions may make an act bad that was once good and one that was once good decidedly bad. But to state a position like this is decidedly dangerous unless it is safeguarded by the distinct qualifications that no one should for a single moment let go of any ethical formula or code that he has used as his guide of conduct until it has been proved to him not only that that formula is leading to social results that are unquestionably bad and that its readjustment would lead to results as decidedly good. In other words, it must be proved that that which was once formulated as ethical has become unethical. Of course, long before this can be done the conduct of those who think they are strictly following such a code will have so changed that they will be found to be violating its letter daily.

For years there has been a great outcry against the "Code of Ethics of the AMERICAN MEDICAL ASSOCIATION," by a large number of influential physicians, on the ground that it did not give sufficient freedom to them in certain lines of conduct they wished to pursue. With these attacks the writer has no sympathy. These men have made no serious attempt to show that the Code in any of the sections complained of disagrees in the slightest with the highest demands of morality. As a rule their objections are based solely on the commercial advantages that a change might bring to them. To permit of a violation of the Code in the matter of advertising and of consultations with quacks and avowed sectarians without a long and loud protest by the best men of the profession would be a bad thing not only for medical science but for civilization as well. Both of these features of the Code are true to scientific ethics and therefore true to the best interests of humanity. To take the Code as a whole it would be hard to suggest any serious improvement in its leading features, but this should not blind us to the possibility that in some of its minor details it might be improved. In one particular feature the writer is inclined to the belief that a single word is at present vitiating what is otherwise a most excellent section. When the Code was adopted, in 1847, no possible exception could have been taken to the presence of that word as it now stands. Then the whole section reflected the purest spirit of true ethics. Now, so altered are conditions that what was then pure, just and moral hardly seems to any longer merit the claim to these characteristics. The section to which reference is here made is found on page 642 of vol. xxxiii.

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of the Transactions of the ASSOCIATION, and reads as follows: "Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone gives it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them." Whoever framed these words clearly saw the danger that menaced medical science in the exploitation of secret medicines. There can not be a doubt in the mind of any reasonable man, who is not blinded by self-interest in connection with such remedies, that they are the bane of modern practice. Secrecy and science are, and forever must remain, sworn enemies. They are absolutely and irrevocably incompatible. To encourage either is to discourage the other. A victory for secrecy is a death-blow to science, and a victory for science is a death-blow to secrecy. Where secrecy rules supreme science can not exist, and where science rules supreme secrecy can not exist. Revealed facts constitute the whole of science, while hidden facts are the foundations of ignorance, vice, savagery and anti-science. Secrecy in medicine is a loving of darkness rather than light, because its deeds are evil. A successful secret remedy is like a beautiful harlot, immeasurably more dangerous than an unsuccessful one. It is, in proportion to its success, a greater and greater enemy to science. Like a pretty wanton it the more certainly leads honest physicians to become traitors to science and enemies to human progress Imagine how this world would have been to-day if everyone who made a useful discovery had kept it to himself. Think of a Newton, a Volta, a Dalton, a Lavoisier, a Black, a Pasteur, a Tyndall, a Kelvin or a Maxwell locking up as private secrets their discoveries as the secret nostrum vendors do their "real" or pretended ones. The very thought of such a thing is depressing. A race of such creatures would only be worthy of contempt and would well merit the misery they would bring on themselves. When medical men learn loyalty to medical science they will quit prescribing such remedies. Every prescription calling for a secret remedy is at once evidence of treason and confessed ignorance on the part of the prescriber. To say that it is reprehensible for physicians to give certificates attesting the efficacy of secret medicines is putting it very mildly when we consider the nature of the offense. In May, 1847, when the Code was adopted, all medicines then known as patent medicines were mere mixtures of drugs for which false and misleading claims were put forth as to their therapeutic worth. They only differed from the non-patented secret nostrums in that a pretended formula was filed away with the custodian of patents at Washington. Pitcher's castoria was among the last of the nostrum patents taken out, and it is not likely that the future will see any more of them. The proprietors of this, having seen that a great mistake was made in having anything to do with the patent office, now wish to baffle, in the courts, all who try to get out other Pitcher's castorias, by confessing that the article that they sold as Pitcher's castoria was not made according to the patent specifications. The growing carefulness of the patent examiners and the danger attached to all patents of becoming public property at the expiration of the time allowed for patents to run has caused these men to quit taking out patents and to depend solely on secrecy to help them hoodwink the public. The patent that in 1847 helped them to appear as if half-way respectable because of its giving them a sort of quasi-endorsement of the Government, has now become a sort of fiery furnace through which they no longer dare travel. The therapeutic monstrosity then known as a patent medicine is now practically extinct. There may be one or two of them in existence, but it is doubtful whether a single specimen remains. The secret nostrum has taken their place! With the protection afforded by a copyright the interests of their proprietors are far more thoroughly preserved than they could be with a patent. But they have differentiated now into two distinct classes: 1, those sold only on a physician's prescription, and 2, those advertised and sold to the public direct. The first class has dared to call itself "ethical." Why? Because, forthsooth, it is only advertised among medical men. Did it ever occur to you what this means? Have you seen the depth of the horrible insult which it implies? Do you not see that this is equivalent to asserting that all medical men are selfish pretenders, whose Code of Ethics is a hollow farce and whose sole aim in practicing medicine is the accumulation of dollars. It means that they believe you want a monopoly of the distribution of their goods and that when you get this your qualms of conscience against nostrums are at an end. It means that they think you are a mere hypocrite whom they can quiet with a bribe of this kind. "Ethical" indeed. The very quintessences of unethicality are secrecy and fraud. Wherever one or both of these exist we have something that is unethical, however carefully it may be kept for physicians' use only. To attempt to bribe doctors prescribing it because it is not advertised in the lay press is but to add insult to injury and crime to crime. What doctor ever considers it unethical to prescribe glycerin, bicarbonate of soda, starch, sugar or other ethical remedy because he happens to see some one advertising such goods in the public press. A drug is neither rendered ethical nor unethical by where or how it is advertised. It is rendered unethical by being of secret composition or being lied about, as to what it can do in a therapeutic way. A doctor who can not see into what constitutes ethics any better than to pronounce that ethical that gives him a monopoly of its disposal has certainly a very inadequate conception of the subject.

Since the patent office became so strict in its examinations that fraudulent claims can scarcely ever if at all pass, it has become the friend of science and the foe of secrecy. It is now no longer a cloak for fraud. Medicines are now made by patented processes that every member of the AMERICAN MEDICAL ASSOCIATION is constantly prescribing. Patent medicines of this kind are perfectly ethical. Among them we can name chloroform, salicylic acid, benzoic acid, and sodium salts. If we strictly interpret the Code as it reads, then it is reprehensible for us to attest to the efficacy of these or in any way promote their use. Who, then, obeys the Code? Surely no such meaning was ever intended by the writer of this section nor by the convention that adopted it. There is scarcely a remedy we use that might not at some time, if it does not now, come under condemnation by so loose a construction of the sentence. Any patented improvement in method of making that happened to give to some one firm a monopoly for a few years would compel us all to quit prescribing the same or encouraging its use in any way. But there is

another class of patented medicines that would be also affected by such an interpretation, although they were wholly unknown when the Code was adopted. Surely they could not have been meant. Or did the compilers of the Code foresee their advent and attempt to provide against them. If this is so it was a rare piece of prevision. These are non-secret, newly discovered remedies of definite chemical composition. It was long after 1847 before the first of these was known. It does not, therefore, seem reasonable to assume that the Code had any reference to them. This, however, does not hinder our condemning them if they are in any way antagonistic to the fundamental tenets of pure ethics. It simply hinders us from reasonably making the mere words of the Code our authority for opposing them. The Code certainly forbids physicians from holding patents on surgical instruments or medicines. Why? Unless we know why this prohibition was put on physicians holding patents we can not know whether or not it applies to the case we are considering. The Code nowhere declares patents per se to be unethical. When Professor Behring undertook to take out a patent on antitoxin every clear thinking medical man condemned it as unethical. Why? Because it is contrary to the fundamental policy of our profession. Behring, being a doctor and having pretended all along to be following the open, liberal policy of doctors, perpetrated a fraud on the profession when he sought for a patent. When he received the praise of the profession for what he was doing he was all the time living a lie. He should have forewarned the profession of his intent, not taken their assistance in work which he intended to monopolize. He should have refused the medal of honor of the French Academy. A medical man who takes out a patent on a medicine or instrument is in a wholly different position from a layman who does the same. He should give up the profession before doing such a thing, so as not to deceive his brethren into robbing themselves of time and effort to help him in his personal ends. It is in no sense unethical to own a patent, but it is unethical to deceive, cheat, misdirect and misrepresent to the world, impliedly or otherwise, what our motives are in our conduct. This is what a patent-holding practitioner of medicine can scarcely, if at all, avoid doing. With laymen it is different. With a retired physician who takes out a patent it is the same as with a layman. Neither of them are acting deceitfully and therefore unethically. Some may hold that the unethical element of the transaction is in the holding as a piece of private property something which the sick should have free of cost. Such a doctrine if carried out logically would lead directly to pure communism and it is hardly likely that the composers of the Code were all communists.

The test of the ethicality of any measure is its being in accord with social good. Is the granting of patents a benefit or an injury to society? Every patent by virtue of being a patent, is not a secret. Its character is fully known. It becomes public property in a few years. Does it pay society to grant patents? Surely no one will deny the fact that the patent office is the greatest stimulant of discovery and invention in the world. Patents granted on anything stimulate discoveries in the direction of that thing. In the patenting of a synthetic remedy we compel workers to divulge the secret of how they prepare that remedy, and encourage others to devote time, brains and money toward the discovery of other remedies. Shall we become moral pirates and rob them of all these? Shall we put up barriers to forbid the production of such good things? Shall we, in other words, become, in the name of ethics, encouragers of secrecy, enemies of medical science, robbers of the labors of others and filcherers of their invested accumulations? These men never could devote their time, talent and capital to such work if they did not hope to get it back with interest. Stop the taking out of medical patents on goods of this kind and you will stop medical progress. A little work will go on just the same, but the discoveries will not be divulged. The world will be the poorer and the victory will be against and not in favor of ethics. Not one of us would do what in the name of a spurious ethics, we ask them to do. But, some one says, these remedies are getting so numerous we do not know what to do with them. Have you never heard of the fundamental law that governs evolution? Do you not know that in the struggle for existence the fittest survive? Did it never occur to you that this embarrassment of riches is a blessing? If you as medical men leave the struggle entirely in the hands of commercial interests there is nothing more certain than that the house that spends the most money advertising its wares will beat those with the best goods. It is our duty as medical men, and particularly as members of the therapeutic section of the AMERICAN MEDICAL ASSOCIATION, to direct this struggle by taking part in it. If, instead of holding aloof from the fight and saying "let the best man win," we should undertake to sift the mass and commend in our loudest tones the best, such a course would end in making therapeutic worth and not pretty advertisements the selecting power of fitness.

Father Not Obliged to Pay for Treatment.—Edelman vs. McDonnell is the title of an action that was brought to recover payment of a bill for medical services. Father and son were defendants. The services consisted of divers consultations, house visits, office visits, surgical operations, and surgical dressings extending over a period of six months. They were rendered in pursuance to the request of the son—who was not a minor—while the first consultation was in progress. But the plaintiff alleged that at divers times thereafter during the treatment the father made statements to him which led him to believe, and from which he did believe, that the father would pay for the treatment, and that he relied on such statements, and gave credit to the father as well as to the son. However, the statements and promises of the father were not in writing. And while the court rendered judgment against the son, it also rendered judgment against the plaintiff and in favor of the father. From this latter the plaintiff appealed. But the supreme court of California affirms the judgment of the lower court. First of all, the supreme court says that it was not shown that such statements were made as would justify the belief that the father would pay for the treatment, or that he intended that they should be so understood, or that the services would not have been rendered had such statements not been made. Perhaps, the court suggests, the statements consisted in expressions of interest in the case, or were express oral guaranties of his son's solvency. Then, it says, it was not found what services were rendered after the promises to pay were made at divers times during the treatment. The first contract of employment having been made with the son, these promises were only to pay his debt. Again, the court points out that it did not appear that the son was living with his father, or was being supported by him. For aught that appeared, they may have been living apart for years, and the son may have had his own family and business. Had the father been taking care of him, and actually supporting him as though he were still a member of his family, as minor children generally are of their parents' family, the court adds, the presumptions might have been very different. It also remarks that it understands that a contract which a physician makes with his patient whose case he undertakes is usually one contract for the entire work. This, however, it pronounces immaterial in this case, for the reason that, if the alleged promises were sufficient to make the father responsible for the visits after such promises, still, it did not appear what services were rendered.

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

Boston Medical and Surgical Journal, December 14.

1.— Experiments on Disinfection of Rooms with Formaldehyde Gas in the City Hospital at Charlottesburg, Berlin. A. W. Fairbanks.
2.— Medical Testimony on Insanity as an Excuse for Crime; Report of Case. Jay Perkins.
3.—*Food Poisoning and Metallic Irritants, Charles Harrington.
4.— Simulated Appendicitis. J. G. Mumford.

Medical Record (N. Y.), December 16.

5.—*Diabète Bronzé and Pathogenesis of Diabetes Mellitus; Illustrated by a Case of Bronze Diabetes Preceded by Basedow's Disease. Henry W. Berg.
6.— Early Diagnosis of Tuberculous Joint Disease. Leonard W. Ely.
7.—*Effect of Certain Occupations on the Pharynx. Seymour Oppenheimer.
8.— Total Aniridia: Two Cases, One Traumatic, One (with Ectopia Lentis) Congenital. Geo. H. Cox.

Philadelphia Medical Journal, December 16.

9.—*Simplest and Most Useful Anastomosis Forceps. A Practical Test. Andrew J. Downes.
10.— Law of the Action of Medicines. (*Concluded.*) Elmer F. Gould.
11.—*Case of Postapoplectic Hemihypertonia. William G. Spiller.
12.—*Report of Case of Typhoid Fever Complicated by Suppurating Thyroid Gland and Orchitis. F. Alan G. Murray.
13.—*Report of Case in which Defective Speech Results in Some Interesting Derangements of Cerebral Functions. G. Hudson Makuen.
14.—*Rectal Adenomas. William M. Beach.
15.— Case of Appendicitis (?). H. B. Besemer.

Medical Review of Reviews, November 25.

16.—*Influence of Morbid Dreaming on the Development of Insanity. J. Leonard Corning.
17.—*Treatment of Cancer by Its Own Toxins. P. J. McCourt.

American Gynecological and Obstetrical Journal, December.

18.—*New Method of Diagnosis of Tuberculosis of the Kidney. Charles N. Noble and W. W. Babcock.
19.— Anatomy and Physiology of Visceral Sympathetic and its Bearings on Pelvic, Abdominal and Mental Troubles. E. K. Bacon.
20.—*Eclampsia. F. L. Brigham.
21.—*Operative Treatment of Uterine Fibroids. F. A. Lockhart.

Medical Mirror (St. Louis, Mo.), December.

22.— Therapeutics of Infectious Conjunctivitis. Dudley S. Reynolds.
23.—*Pathologic Common Sense and Drinking of Alcohol. C. H. Hughes.
24.—*Value of Prostatic Examination. J. Leland Boogher.
25.— Address. Wm. F. Waugh.
26.— Beta-Eucain as an Anesthetic in Eye, Nose and Throat Work. Wm. H. Poole.
27.— Treatment of Acute Lobar Pneumonia. Ramon D. Garcin.

Kansas City Medical Index-Lancet, December.

28.—*Have We a Medical Treatment for Typhoid Fever? B. H. Zwart.
29.— Case of Porro Operation with Rare Complications, and a Case of Tubal Pregnancy Operated on Before Rupture. Milo B. Ward.
30.—*Destruction of Cancer by Electric Currents. H. E. Pearse.
31.— Endocarditis. C. F. Wainwright.
32.— Diseases of Rectum and Anus. S. G. Gant.

Medical Review (St. Louis, Mo.), December 16.

33.—*Toxic Human Milk. E. W. Saunders and C. Fisch.
34.— Paralysis Agitans without Tremor. Charles Gilbert Craddock.

Journal of Boston Society of Medical Sciences, November.

35.—*Comparative Study of So-Called Polychromatophilous Degeneration of Red Blood-Corpuscles. Ernest L. Walker.
36.— A Modified Perimeter. Charles H. Williams.
37.— Temperature and Rhythm. Robert T. Edes.

Memphis Lancet, December.

38.—*Value of Treatment in Pneumonia. S. W. Purifoy.
39.— Abscess of Uterine Wall. W. W. Taylor.
40.— Law and Medicine—Similarities and Contrasts. John H. Cantrell.
41.— Plea for More Thorough Study of Materia Medica. E. A. Neely.

Medical Council (Philadelphia), December.

42.— The Eye: How It Sees, Its Defects and Their Cure with Glasses. A. H. P. Leuf.
43.—*Suggestions in Dysmenorrhea. J. F. Ritter.
44.—*Vaginal Hysterectomy. Wm. H. Wathen.
45.— Proper Nursing Absolutely Necessary for Successful Treatment of Typhoid Fever. J. E. Coleman.
46.— Compound Dislocation of Finger. H. N. Rafferty.
47.— Earache. E. B. Gleason.

Medical Age (Detroit, Mich.), December 10.

48.— Morphinism. Walter F. Boggess.
49.—*Leprosy is Surely Contagious. Albert S. Ashmead.

Columbus Medical Journal, November 20.

50.—*Obstipation. Sterling Barner Taylor.
51.— Railroad as a Benefactor to Civilization. G. W. H. Kemper.
52.—*Coughing. Daniel A. Berndt.

American Practitioner and News (Louisville, Ky.), November 15.

53.—*Some Phases of Puerperal Infection. A. Morgan Cartledge.
54.— Diphtheria: Its Identity and Transmissibility from Lower Animals to Human Subjects. William B. Meany.
55.— Report of Two Hundred and Seventy-Six Intubations. W. B. Pusey.

AMERICAN.

3. **Food Poisoning and Metallic Irritants.**—The diagnosis of ptomain poisoning from that of arsenic is the subject of Harrington's communication, and he points out their common symptoms. There are three notable differences, however. In arsenic poisoning we have heat and constriction of the throat, while in food poisoning swallowing and speaking may be impossible, from paralysis, which does not occur with any metal irritants. The second point is the condition of the pupil. In ptomain poisoning a marked dilatation has been generally observed, and in many cases great impairment of vision and even total blindness. Rarely contraction is noticed, and sometimes one condition succeeds the other. The third point of difference is in the muscular system. In arsenic poisoning there is great prostration, but the patient can stand or walk about. In food poisoning, on the other hand, there is most commonly an inability of the legs to support the body, even when the patient is assisted. Fortunately, as regards treatment, the diagnosis is not of great importance. In either case removal of the poison is the first indication, and supportive treatment requisite. In doubtful cases the antidote for arsenic can do no harm, even if that poison is not present.

5. **Bronzed Diabetes.**—After reporting a case of this affection, preceded by Graves' disease, Berg discusses the condition and what is known of it and its probable pathology. He thinks that diabetes may be of several kinds, those due to liver and pancreas disease, that from irritative lesions of the sympathetic and that due to destructive lesions of the vagus or to disorders of the lower portion of the vagal center of the medulla, which may be a reflex manifestation of the lesions of the sensory sympathetic. In his case he thinks it likely that the cervical sympathetic was first involved.

7. **Effect of Certain Occupations on the Pharynx.**—The following are Oppenheimer's conclusions: 1. The pharyngeal mucosa of the mill hand under 20 years of age is more susceptible to unfavorable influences than is that of the individual over that age. 2. The inhalation of dust, fibers, and chemical agents are the factors of most importance. 3. The majority of industrial workers are affected with pharyngeal disorders, dependent to a certain extent upon their occupation. 4. In those already affected with pharyngitis before assuming these occupations, the morbid changes are augmented by the work. 5. The primary pharyngeal changes are those of acute congestion and inflammation. Chronic changes are the ultimate result. 6. The pharyngitis produced in part or whole by the occupation does not differ in any respect from the ordinary forms. 7. Provided the nasal chambers be in approximately normal condition, pharyngeal affections are much less liable to occur than otherwise. 8. Hygienic measures applied to the environment of the worker are of vast benefit as regards the improvement of his general condition, and therefore of the upper respiratory tract. 9. Local care, as has been outlined, will be productive of much good.

9. **Anastomosis Forceps.**—Downes here describes a form of forceps for intestinal anastomosis, arranged with an interrupted ring so that blades can be unlocked and withdrawn separately. As he describes it, it is a simple forceps containing perfectly circular fenestrated rings with a small segment left open for introduction and removal as a whole.

11. **Postapoplectic Hemihypertonia.**—In this article Spiller reports a case of a peculiar form of muscular tonicity described by v. Bechterew, which he thinks should be clearly separated from other forms of posthemiplegic movement. It is a tonic spasm on one side of the body, associated with a little weakness, without contracture, coming on after an apoplectic insult and probably due to irritation of the motor fibers at some point below the motor cortex. This condition has been named by Bechterew, hemitonia apoplectica, for which Spiller suggests as a better designation, hemihypertonia postapoplectica.

12. **Typhoid Fever.**—Murray here reports a case of typhoid fever accompanied by suppurating thyroid gland and orchitis, two rather rare conditions which are not before reported combined, in Keen's recent work on the sequels of this disease.

13. **Congenital Word Blindness.**—Makuen briefly reports a case of a boy who had difficulty of speech and inability to

recognize letters and words to a certain extent. He was quick at arithmetic, but very much behind in other studies, and it was difficult for him to talk with his companions. The trouble seemed to arise from an attack of meningitis at the age of 14 months, and he thinks that probably there may have been damage to the visual word center of the brain at that time. Two somewhat similar cases have been reported, all in boys. Under special training improvement was rapid.

14. **Rectal Adenomas.**—The conclusions of Beach's paper are as follows: 1. Rectal adenomas may be hard or soft; they contain the constituent elements of the mucosa and submucosa. 2. They may be malignant or benign. 3. Benign in their origin, they may become malignant. 4. Early recognition, made possible by the newer methods of inspection, is of the first importance.

16. **Dreams and Insanity.**—The influence of dreams in the production of insanity is here discussed by Corning, who refers to DeSanctis and others who have written on the subject of the hypnogogic origin of insanity, and adopts their views in substance. He thinks that the images of ideas aroused in the uncritical mental state of sleep may gradually pass into the waking state and become fixed, rendering the subject insane. It is not neurotic persons, however, who are specially liable to this cause. It is more the ignorant and superstitious.

17.—See abstract in the JOURNAL of December 9, p. 1502.

18. **Tuberculosis of Kidneys.**—Noble and Babcock report a case of tuberculosis of the kidney, diagnosed by the sterile catheterization of the ureters and inoculation tests on guinea-pigs. They think that this is an important and exceedingly valuable method of diagnosis in most cases.

20. **Eclampsia.**—Brigham, after noticing the symptoms and what is presumed in regard to the pathology of eclampsia, reports cases in which veratrum viride was employed in doses of from 20 drops to ½ dram with success. He believes it is the remedy *par excellence*. In most of these cases he used morphin hypodermically with it, but he does not consider this as a special part of the treatment. The theory of the action of veratrum in such cases is, according to him, that it reduces arterial tension and softens the rigid os, thereby removing the cause producing the malady.

21. **Uterine Fibroids.**—Lockhart sums up as to the treatment of uterine fibroids, in the following conclusions: 1. A uterine fibroid should not be interfered with unless it is giving rise to serious symptoms, be they mental or physical, notwithstanding the statement of one gynecologist that he removes all fibroids that he meets with in practice, whether they are causing trouble or not. 2. Curetting is merely a palliative measure, as is, also in many cases, ligature of the uterine arteries. 3. Removal of the appendages ought to be merely a *dernier ressort*, as it practically never cures and does not always even relieve. 4. The operation of selection should be either total hysterectomy or else a myomectomy. 5. Myomectomy is to be chosen where the tumor is submucous and pedunculated; where it is subserous and either has a pedicle or a well-defined border; where several small nodules lie immediately beneath the peritoneum. 6. Total hysterectomy is indicated where the tumor is submucous and non-pedunculated, and the cervix can not be dilated sufficiently to allow of *morcellement;* where the tumor is either interstitial, large and subserous without a pedicle, soft, fibrocystic, or undergoing degeneration; where the tumor is complicated by diseased adnexa.

23. **Alcohol.**—In this paper, contributed to the recent temperance congress at Paris, Hughes notes the evils of alcohol and suggests as a remedy the substitution of other beverages, requiring all places where alcoholic liquors are sold by the drink to have the harmless beverages on sale. License no drinking shops apart from restaurants and thus practically abolish the bar as such, he says. He thinks this would be properly in the line of inebri ate legislation, and maintains that strong coffee drinkers are less liable than water drinkers to become inebriates. Another suggestive treatment is by medication. The man who craves alcohol needs a physician and his system needs strychnin and bromids with gastric palliatives. The nerve centers are unstable when they crave alcoholic stimulation.

24.—See abstract in the JOURNAL, October 14, p. 978.

28. **Typhoid Fever.**—Zwart maintains that the autointoxication is to be combatted in typhoid fever; that it is especially favored by a necrosis of the lymphoid tissues of the bowels, and that while we can not attack the specific infecting agent, we can control autointoxication by the early use of antiseptics, which is the only rational medical treatment. It materially modifies the disease and shortens it if taken early, while the use of antipyretics adds to the danger.

30. **Electricity for Cancer.**—Pearse advocates the use of electricity in the way of electric cataphoresis, carrying mercury into the tissues through hollow needles. The elements of chlorin and oxygen gather at the positive poles, and the oxychlorid of mercury is produced. He claims that this has been applied in thirty-eight cases, with such success as to lead him to believe that it is a cure for all forms of cancerous disease that are accessible to the treatment and not too far advanced, and that hopeless cases are much relieved.

33. **Toxic Human Milk.**—Saunders and Fisch report several cases as proving the position held by them in a previous paper, that there is another cause than the disproportion of nutritive elements in breast milk to account for the ill effects on the nursling sometimes observed. In the cases here reported, analyses were made and microscopic examinations and culture investigations, which did not demonstrate anomalies. Inoculation experiments on guinea-pigs and rats showed, however, marked toxic qualities fully accounting for the bad effects observed in the nursling. The poison appeared to be in some cases an alkaloid, and in another a toxalbumose, and these were not exactly typical in their action. For instance, the toxalbumose produced in animals experimented on, a subnormal temperature, an effect usually ascribed to alkaloids, and in another case an alkaloid poison produced elevation of temperature. In one, absence of toxicity of milk was demonstrated, yet there was a mild derangement of digestion in the nursling, which was ascribed to the excess of proteids and small percentage of mineral matters. They conclude that the poison in the milk is absorbed from the gastrointestinal or the genital tract of the mother, in menstruation, etc., and that it is elaborated by the cells under the influence of disturbed innervation.

35. **Degeneration of Red Blood-Corpuscles.**—Walker takes up the opinion that the occurrence of basophilous corpuscles in the blood is a pathologic occurrence. Following the suggestions of Smith, Gabritschewsky and Askanazy, he investigated the blood of the lower animals, of the fetus, and of the marrow of the bone, and found that the universal presence of basophilous corpuscles as elements of the embryonic red corpuscle tissue in the healthy vertebrate marrow furnishes unqualified disproof that they are corpuscles showing changes due to the pathologic conditions. He notes the condition of their appearance in the blood of animals, and concludes that they are elements taking the place of those that have been lost through disease. The practical value of these investigations is in showing that we have a quick, accurate method of microscopically diagnosing anemia, the presence of these embryonic bodies being quickly determined by a simple staining method which he describes as follows: Dried blood films are to be fixed, fifteen to twenty minutes, in a mixture of equal parts of absolute alcohol and ether, stained five to ten minutes with Löffler's alkaline methylene blue solution, and examined in water. The nuclei of the white and the red and the basophilous corpuscles, and the malaria parasites, if present, are stained blue. The normal red corpuscles are unstained.

38. **Treatment of Pneumonia.**—The death-rate in pneumonia was formerly considered to be between 5 and 90 per cent., according to the circumstances under which the disease existed and the environments of the patient. Purifoy, having stated the above, remarks on his experience with the disease. A large proportion of deaths probably more than 30 to 100, occurred in hospital practice during his early professional life, and he had the opportunity to observe the effect of different styles of treatment. He criticises the notion that the heart requires stimulation by strychnin, etc., holding that it simply increases the exertion of the organ under a load that is already as much as it can endure. Assuming that pneumonia is a special infectious fever, its duration limited to the life of the germ, the destruction of which is affected by its own toxin, he

began to give morphin in doses of ¼ gr., according to the nature of the case, and had only a percentage of 15, of deaths. The rational treatment, he holds, looking forward, will be in the line of serum therapy, which is being experimented on by Pane and DeRenzi. He believes it the only treatment presented so far with a rational basis.

43. **Suggestion in Dysmenorrhea.**—Ritter argues that many cases of dysmenorrhea are amenable to suggestive therapeutics, and reports an illustrative case in which, by a sort of hypnotism combined with massage, he completely relieved an obstinate case. He says that whenever he has failed in material measures, he has never been disappointed in obtaining very marked relief from suggestion, and generally cure of his patient.

44. **Vaginal Hysterectomy.**—Wathen reports a case in which extreme nervousness, almost bordering on insanity, was entirely relieved by complete removal of the uterus and its appendages. There was no apparent abnormality, except a very great enlargement of the organ, and its substance a little softer than normally. He mentions other cases where ovariotomy gave no relief, but removal of the uterus did, and suggests that there is here probably some unknown nervous disorder that can not be cured until the uterus is removed.

49. **Leprosy.**—Ashmead maintains that leprosy is surely contagious, and quotes Dr. Aguaro, a Columbian physician, that it is most liable to be contracted through sexual intercourse. He also quotes another who holds that it requires only an initial local lesion for its inoculation.

50. **Obstipation.**—After noticing the various symptoms of obstinate constipation, Taylor enumerates the causes as follows: 1. Compression, the canal being obliterated from without. 2. Obstruction. 3. Constriction, obstruction by causes starting from or involving the intestinal wall, and narrowing the canal. 4. Hypertrophy of normal rectal valves. This last he considers the most prominent factor, and maintains that the existence of these valves has been sufficiently demonstrated. He reports five cases of this character, relieved by the operation of valvotomy, according to the method of Dr. Martin of Cleveland.

53. **Puerperal Infection.**—Cartledge advocates, in extreme cases, hysterectomy for puerperal infection, and reports, at some length, a case in which it was performed. He thinks that curetting, except for the removal of adherent membranes or placenta, is likely to be useless and may do harm. Thorough irrigation in most of such cases is better than making fresh raw surfaces.

FOREIGN.

British Medical Journal, December 9.

Clinical Remarks on Hypertrophic Cirrhosis of Liver with Bronzing of Skin: Hemochromatosis. WILLIAM OSLER.—The author reports a case of progressive bronzing of the skin and no diabetes, occurring in a pilot aged 48, whose general health had been good except for attacks of purpura and urticaria, and who was a moderate user of alcoholics. He reports another, also of progressive pigmentation without diabetes, and with enlargement of the liver and spleen in a patient who had been subject to attacks of continued tropical fever. He considers the pathology of the process as obscure, and quotes, as possibly the best expression of our knowledge at present, the following conclusions from a paper by Opie, to be published in the *Journal of Experimental Medicine*: 1. There exists a distinct morbid entity, hemochromatosis, characterized by the wide-spread disposition of an iron-containing pigment in certain cells, and an associated formation of iron-free pigments in a variety of localities in which pigment is found in moderate amount under physiologic conditions. 2. With the pigment accumulated there is degeneration and death of the containing cells, and consequent interstitial inflammation, notably of the liver and pancreas, which become the seat of inflammatory changes accompanied by hypertrophy of the organ. 3. When chronic interstitial pancreatitis has received a certain grade of intensity, diabetes ensues and is the terminal extent of the disease.

Remarks on Pathology of Tabes in Relation to General Paralysis of Insane. WILLIAM GOWERS.—The author's remarks here are in relation to the causation and pathology of tabes and the relation of the two to each other. He thinks the question as to the syphilitic origin of tabes, in certainly the great majority of cases, has passed into the region of admitted fact. He is not an advocate of the identity of the two diseases. He believes that the toxic agents acting in these cases lower the durability of the nerve elements so that some other factor induces a premature decay.

Albuminuria in the Apparently Healthy. HERBERT P. HAWKINS.—The subject of albuminuria as it occurs after exertion, mental strain or anxiety, dietetic conditions and from posture, is here taken up. The latter form, which is generally observed in the morning is, he thinks, the most common. As regards the prognosis in these cases, he is not decided. He considers that it must be due to a temporary impairment or excitability of the epithelium of the glomeruli, and that this impairment is itself the result of temporary alteration of blood-pressure in the capillaries. It is a vasomotor disturbance primarily, and the question as to whether it leads to an organic change of the kidneys is not yet clear, though he evidently has doubts as to its harmlessness.

Lancet, December 16.

Influence on Health of Chemical Preservatives in Food. ALEXANDER G. R. FOULERTON.—Foulerton's article, which was begun in the previous number of the *Lancet*, is here concluded. He thinks that boric acid and formic aldehyde, if used in the small proportions found, would hardly cause any injurious effects to the average adult, but for invalids and young children they might be injurious. It is not likely that the boric acid would affect the digestive process, but it might have toxic effects in a general way. Formic aldehyde, on the other hand, might, to some extent, impair the digestibility of the milk. In no other article of food is the presence of these substances so important, and the need of legislation is greater because their presence can not be detected except by analysis. He thinks that no preservative should be used which is not sanctioned by the government, and the proportion of preservatives should not exceed a certain maximum; their presence should be declared by the vendor, and the article sold as being thus prepared.

Bulletin de l'Academie de Medicine (Paris), November 28.

Exclusive Alimentation with Meat in Treatment of Experimental Tuberculosis in Dogs. C. RICHET.—In a large number of dogs inoculated with human tuberculosis, under the same conditions, all died except those which had been fed exclusively on meat; 50 per cent. of these survived. Richet is inclined to explain this salutary action of meat diet on the same principles as the metaphoric method of therapeutics which he has recently announced in the enhanced effect of sodium bromid, etc., when salt is almost entirely omitted from food. (See JOURNAL, p. 1633.) The impregnation of living cells by this or that alimentary substance renders them less apt to feel the influence of this or that medicinal or toxic substance. By changing the nourishment of the cells, they can be rendered more or less liable to the action of other substances. In feeding dogs with meat exclusively, the cells possibly become impregnated with the extractives of the meat and do not take up the toxin or tuberculosis. Whether this hypothesis is correct or not, the experimental facts observed sustain clinical experience in respect to the benefit of a meat diet in anemia and phthisis. Gautier not long ago announced that subcutaneous injections of sodium cacodylate would restore the appetite in the second stage of tuberculosis when anorexia [illegible] to prevail, as noted in the JOURNAL, enabling a meat diet to be resumed. Laborde has been successful with an excess of fat in the diet of tuberculous subjects, having them ingest five or six pounds of butter a day. Richet is now testing the exclusive meat diet on dogs in different stages of tuberculous infection.

Presse Medicale (Paris), November 11, 15 and December 2.

Pneumococcus Gastritis, with Hematemesis. G. DIEULAFOY.—A manifestation of pneumococcus infection is described by the writer, with two observations in detail, in which the mucous membrane of the stomach is the seat of a multitude of small hemorrhagic erosions swarming with pneumococci, in the course of pneumonia or generalized pneumococcus infection. The lesion in the stomach is best described as a pneumococcus, hemorrhagic, ulcerous gastritis. The clinical manifestations are pains in the stomach, nausea, vomiting and hematemesis. The latter may be considerable and recur. He believes that these pneumococcic erosions are easily repaired, but there may

be circumstances in which the ulcerous process is not arrested and continues its course to terminate in the classic form of *ulcus simplex*.

Presence of Microbes in Intestinal Mucosa of Nurslings Affected with Gastroenteritis. A. B. MARFAN.—In the ordinary gastroenteritis of nurslings, due to saprophytes facultatively pathogenic, Marfan ascribes to them only a secondary rôle. The primary lesions are caused by the action of irritating or toxic chemical substances in the alimentary canal, either introduced with the milk or other food, or generated elsewhere, brought by the circulation or bile, or possibly derived from fermentations or putrefactions in the canal itself. These substances alter the wall of the intestine and open a portal for invasion by the microbes. This view explains the inconstancy of the bacterial invasions, the absence of relations between the intramucous microbian colonies and the lesions, also the frequent disproportion between the lesions found and the severity of the symptoms, etc.

Surgical Analgesia from Injection of Cocain Under the Lumbar Arachnoid. T. TUFFIER.—The JOURNAL has reported the success of Bier and others in obtaining analgesia by injections of cocain directly into the spinal canal (page 1271), and Tuffier announces equally favorable results in five tests. He found that the injection of 1 cg. of cocain in a 1 per cent. solution, into the sacro-lumbar space, produced complete analgesia in the inferior members, long enough for all surgical operations on these members. The injections seem perfectly harmless, and are apparently indicated in cases in which general anesthesia can not be resorted to. The analgesia is complete for vaginal hysterectomy, but is negative for abdominal operations. He observes that much more research is required on the subject, however, before the procedure can be currently recommended.

Chronic Primary Aspergillus Membranous Bronchitis. L. DEVILLERS and L. RENON.—There is only one observation of primary aspergillosis on record, and this was not accompanied by membrane formation as in the case described in this communication. The patient assisted her husband in his business, the scientific selection of more resistant grains for sowing in poor soil and lived in a damp house. Since 1894, she has complained of a musty taste in her mouth, occasionally, followed by a sense of suffocation at the entrance to the throat, dispelled by expectoration of a few sputa. Since 1898, about once a month, respiration has become difficult and whistling, and in twelve hours violent spasmodic coughing ensues until relieved and arrested by the expulsion of a greenish membrane, from 3 to 6 cm. long and 1 or 2 cm. wide, which consists exclusively of the mycelium and virulent spores of the aspergillus fumigatus. Aside from these monthly attacks the subject is in good health. Vigorous treatment with inhalations of iodin, and general arsenical treatment has not materially ameliorated the conditions. Colla has recently reported a case of aspergillus pseudo-tuberculosis in a traumatic diabetic; at the autopsy the mycelium was found even in the fibrinous exudate of the pulmonary alveoli. In the above case the invasion seems to be limited to one large bronchus.

Centralblatt f. Chirurgie (Leipsic), December 2.

Alcohol Narcosis. MATTHAEI.—This method of narcosis is based on the similarity of the effects of alcohol, chloroform and ether and the assumption that alcohol is less dangerous than the others, especially for persons accustomed to its use. Matthaei announces that rabbits can be rendered insensible in two or three minutes, to needles inserted in the ears, paws or skin, by having them inhale the fumes of alcohol heated to 50 or 60 C., supplemented by a mechanically retained rectal injection of two to five grams of spiritus in ten to fifteen of water. He used Kappeler's metal chloroform mask and apparatus, which sends compressed air into the alcohol. The fumes alone do not produce deep enough narcosis, and it persists too long. The supplementary alcohol is far more prompt and energetic in its action, administered *per rectum* than *per os*, which also avoids danger of the subject's acquiring a taste for liquor. The room must be quite warm to prevent condensation of the alcohol on the mask. In all previous attempts at alcohol narcosis, unnecessarily enormous doses have been administered. The proportion for the rectal injection is 1.2 to 2 grams of alcohol per kilogram of weight, that is, for an adult weighing 60 kilograms, 72 to 120 grams of alcohol, equal to from 144 to 240 grams 50 per cent. cognac or a bottle of wine, but the effective minimum must be sought for individual cases. He begs others to test this method on man, for which he has no opportunity, suggesting that it might first be tried on intoxicated persons requiring an urgent operation.

Deutsche Medicinische Wochenschrift (Leipsic), December 7.

Radical Operation of Volvulus and Invagination by Resection. V. EISELBERG.—An experience of six cases of volvulus of the sigmoid flexure and nine of invagination has convinced Eiselberg that simple untwisting of the volvulus and disinvagination of the invagination are simple and effective processes, but have no influence on the prevention of recurrence of the volvulus or invagination. In fact, recurrence seems to be the rule. Colopexy has not yet been sufficiently tested. Consequently Eiselberg recommends total resection of the volvulus or invaginated portion as the safest radical operation. Whether it is carried out at once or in a second intervention is decided by the individual circumstances in each case. Excluding cases hopeless from the start, he has had 7 recoveries in 7 operated on for invagination. Of the 4 of volvulus cured by simple untwisting of the loop, 2 returned later with recurrence; 1 was lost sight of, 1 died of ileus, unoperated.

Treatment of Fresh Injuries of Extensor Apparatus of Knee. DOEBBELIN.—The results attained in eleven cases of fresh fracture of the patella inspire Doebbelin to recommend his method, which consists of an arc incision from one epicondylus femoris to the other, over the lower end of the ligamentum patellæ proprium. The skin flap thus made is turned back, the fracture exposed, and the fragments united with two strong catgut threads, or one silk and one catgut. The periosteum and the fascia on the surface of the patella are pulled out of the crack and sutured exactly in front of it. A portion of the skin wound is left open, with no drainage. The leg is put up in splints in extension, and elevated. The first dressing is not changed for ten to fourteen days. The hands are never allowed to touch the tissues at any time; all the work is done by means of instruments or compresses. No serious complications were observed in any case.

Present Status of Disinfection of Hands. P. FURBRINGER.—The writer is a warm advocate of alcohol as the most efficient disinfectant we possess for the hands, and suggests that the varying results obtained by different investigators are due to the varying conditions of the tests. The clinical saprophytes encountered in daily practice should not be compared with the virulent germs used in some of the tests.

Muenchener Medicinische Wochenschrift, November 28.

Typhus Bacilli in Roseola of Typhoid Fever. H. CURSCHMANN.—Neufeld considers the rose-colored eruptions in typhoid fever metastases of the typhoid lesions in the intestines, and by cutting out a scrap of the tissues and transferring it immediately to bouillon, with a little of the ensuing blood, he has succeeded in all but one of fourteen cases in obtaining a positive bacteriologic result. Curschmann confirms all his statements, and announces that in the bacteriologic examination of these eruptions we have a simple, easy and positive means of differentiating typhoid in dubious cases at an earlier stage than is possible with the seroreaction. He obtained cultures in fourteen out of twenty cases in various stages, and thinks that they would always develop at a given stage of the lesion. He found these cultures from roseola eruptions useful in the serodiagnosis of other cases.

Artificial Therapeutic Hyperemia. A. BIER.—"It seems to be established that the beneficial results attained by attracting the blood to the region in chronic rheumatism can be secured fully as well by stagnation of the blood, which suggests that the improvement is due to an identical process in each, equally prominent whether the blood flow is accelerated or retarded, possibly due to the resolving properties of the blood." Bier describes and illustrates the simple box contrivance by which he applies hot air directly to the joint in chronic rheumatism, at a trifling expense. The box is made of wood, covered with duck, painted, with soluble glass, inside and out, which renders it fire-proof and durable. The heat is derived from a large alcohol lamp, adjustable, at the desired height, in a stand terminating above in a funnel-shaped chimney

which turns at a right angle into the box. It is usually applied an hour a day. He is inclined to hope much from improved cupping appliances like Junod's boot, by which the blood can be sucked into the part, and then by admitting air, allow it to flow on, repeating this process indefinitely. "There is a field for mechanical achievements in this line."

Treatment of Afterbirth Period. M. HOFMEIER.—A fatal case of puerperal infection brought before the courts leads Hofmeier to suggest the following rules to guide the practitioner in his postpartum treatment. In his and Zweifel's experience, if the placenta is not delivered in three to four hours, it never is spontaneously delivered later. In regard to hemorrhage he always has a clean pan slipped under the woman after delivery, to collect the blood so as to be able to estimate the amount of hemorrhage, if any occurs, and prompt intervention is indicated when 1 or 1½ liters of blood have been lost. He also advocates a thorough objective disinfection of the patient before undertaking any obstetric operation, observing that any practitioner is culpable who omits thorough disinfection of the external genitals and the vagina before any postpartum manual operation.

Venous Thrombosis in Chlorosis. O. LEICHTENSTERN.—Venous thrombosis was noted by Eichhorst four times in 243 cases, or 1.6 per cent.; by v. Noorden five times in 230 cases, or 2 per cent. and by Leichtenstern eleven times in 1653 cases, or .66 per cent. He calls attention to the facts that edema may be entirely absent, even with pronounced thrombosis, and that chlorotic thrombosis of the veins and sinuses is favored by pregnancy. Several of the cases recorded were in the early months of pregnancy. Hemorrhage also favors chlorotic thrombosis. The thrombosis occurred in the veins of the leg in forty-eight cases on record, and in the cerebral sinuses in twenty-nine and only once each in the other localities in the eighty-six cases analyzed. He notes the remarkable frequency of thrombosis of the sinuses in young chlorotic subjects, otherwise healthy, and places chlorosis in the front rank of all the morbid conditions which induce spontaneous sinus thrombosis. Involvement of the sinus rectus is much more dangerous than of the sinus cavernosus. The veins of the leg are affected as often as the femoralis, which distinguishes chlorotic thrombosis from the thrombosis following acute infectious diseases in which the femoralis is almost exclusively affected. The smaller the obstructed veins the less edema and the greater the difficulty of the diagnosis, especially when located in the deeplying veins of the calf. Even pain may be absent. But if mistaken for neuralgia, myalgia, etc., and massage and exercise are ordered, fatal pulmonary embolism may result. Patients with chlorotic venous thrombosis must be carefully supervised even after clinical recovery, as is demonstrated by some fatal cases described. Pulmonary embolism occurred in a fifth of the fifty-two cases of thrombosis of the lower extremities, all but one fatal. The clot in chlorotic thrombosis seems to have more of a tendency to crumble than in any other affection, except perhaps the puerperal. Each thrombus formation is accompanied by a very slight increase of temperature for one to three days, intermittent, usually in the evening. High fever, chills, exclude the diagnosis of chlorosis. With sinus thrombosis the fever is also slight, but more continuous, and rises as the fatal termination approaches. He attributes the etiology to several factors: an alteration in the texture of the intima, the weakened heart action and the increased destruction of figured elements in the blood with the liberation of fibrin ferment, and adds that the infrequency of chlorotic thrombosis indicates that these conditions are seldom all combined, and that their combination may occur in cases not otherwise the most severe.

First Case of Successful Gastroenterostomy for Congenital Hypertrophy and Stenosis of the Pylorus in a Two Months' Nursling. W. ABEL.—The operation lasted fourteen minutes; Woelfler's method was followed; ether. The infant showed no signs of collapse at any time; slight fever next day; uneventful recovery.

Prager Medicinische Wochenschrift, xlii and xlvi.

Vessel Sounds in Interstitial Hepatitis, v. JAKSCH. In three out of sixty-four observations of chronic interstitial hepatitis, v. Jaksch noticed an intra-abdominal vessel sound in the corner between the liver and spleen, and the autopsy of one case showed that the vena lienalis was very much enlarged, probably the origin of the systolic sound.

Wiener Klinische Wochenschrift, November 30.

Phenomena Occurring on Electric Stimulation of Corpus Striatum and Thalamus Opticum. J. PRUS.—Continuing his study of electric stimulation of portions of the brain (see JOURNAL, p. 1418), Prus now announces that stimulation of the corpus striatum and thalamus opticum, after painting the cortex with 10 per cent. cocain, only produced tonic or clonic contractions and increased the blood-pressure in the former and decreased it in the latter case, with none of the epileptic symptoms, running movements, nor alterations in respiration and pulse, such as follow similar excitation without the cocain. This demonstrates that the latter symptoms are reflex phenomena induced by excitation of the superficial layers, while the contractions and influence on the blood-pressure are evidently due to the direct electric excitation of the motor cells and nerves which pass through these portions of the brain or in their immediate vicinity. Weak or moderate currents have no effect on the thalamus; a strong current is required to produce these phenomena. The same results followed in both cases after the pyramidal tracts had been severed. He concludes that the corpus striatum plays a certain part in the voluntary movements and also in the co-ordination of the more automatic movements of running, etc. Besides this, it exerts a certain influence on the blood-vessels by means of its vasomotor center for the vasoconstrictors. He consequently asserts that the clinical symptoms of rising temperature and redness of the skin on the paralyzed side in case of extensive lesion of the striatum are due to paralysis of this vasomotor center, and that the tremor and choreatic movements are also probably connected in some way with the function of this body. Stimulation of the rear outer portion of the optic thalamus induced an expression of violent anger, and of the rear median section, clonic contractions with much tremor. He also established the existence of a vasodilating center in the rear median section. The disturbances in facial expression, vasomotor disturbances and choreatic movements noted in disease of the thalamus, therefore, coincide with the results of his research. Even the atrophy of the muscles which frequently follows a lesion of the thalamus, is readily explained by assuming paralysis of this vasodilator center, which allows the constrictors to get the upper hand, with consequent lack of sufficient nourishment.

Bilateral Disease of Parietal Region. D. G. ANTON.—From observation of a case with almost entire loss of automatic and histrionic movements, disturbances in vision and loss of sense of locality and distance, among other minor symptoms—due to a neuroglioma involving both parietal regions—Anton infers that the motor components of the act of seeing—visual perception—constitute a special function of the brain. Although it is closely and intimately connected with the optic-sensory center, the substratum is located in the parietal lobe.

Societies.

Chicago Ophthalmological and Otological Society.

Nov. 14, 1899.

METHYL ALCOHOL AMAUROSIS.

DR. CASEY A. WOOD presented, through the courtesy of Dr. Patillo, two cases of methyl alcohol amaurosis from inhalation of the poison, in which the fundus changes were well marked. In connection with these, he wished to point out a very curious circumstance: Until last year, cases of amblyopia or amaurosis from the use of methylated spirits were extremely rare, the first being described in 1877. He wrote a small monograph on "The Toxic Amblyopias" in 1892-94, and was unable to find reported more than this single case in all literature. The experience of de Schweinitz, who wrote a still larger work on the same subject in 1895, seems to have been the same. Since that time, a dozen or more cases have been described, but all of them within the past year or two.

In all the instances hitherto given, the amblyopia or amaurosis occurred from drinking the spirits, but in this case it occurred from absorption by the lungs, mucous membranes and

skin. The patients had good vision and there is no history of syphilis nor of any condition likely to produce sudden blindness. They were employed to "shellac" the interior of beer-vats in a brewery. These vats were 20 feet wide by 10 feet deep, cylindric in shape and were almost entirely enclosed. There was indeed a vent of three or four inches in diameter at the top, and a sort of man-hole partially closed by a lantern, through which the painters crept. It was subsequently shown by analysis that the shellac was not properly prepared, as it was composed of a solution containing more than 50 per cent. of methyl alcohol. In addition to this the temperature in the vat was raised to about 70 degrees, in order to dry the interior. These men were consequently exposed to this concentrated and hot methyl alcohol vapor for hours at a time, and it is not surprising, knowing as we do the poisonous qualities of wood alcohol, that they were soon affected by vertigo, nausea and general malaise. They next found, on awakening one morning, that they were totally blind. Improvement in vision took place after a week or ten days, and one of them was able to get around pretty well. About two weeks after the beginning of the blindness, the visual acuity in both again sank and now amounts to very little. By one patient, hand movements in one eye and fingers at about two feet are visible; by the other, fingers are seen at three feet by one eye and at eight by the other.

In both cases the field of vision exhibited a very decided positive scotoma, with apparently, a very narrow rim of percipient retina. In one patient it was impossible to measure the field at all with the usual objects, on account of the very low vision, but by means of a faint light it was fairly well marked out. Vision is now worse than it was after the first improvement. The fundus changes in one seem to bear out the theories of Ward Holden, who has written on this subject and examined dogs to whom methyl alcohol was given *per orem* after anesthesia. He believes the alteration begins in the retina, from whence it ascends to the optic nerve and later proceeds to true atrophy. This condition of things can be plainly seen in these two fundi, he said. In one of the patients there are certainly indications of a periarteritis, with macular changes and dirty, woolly disks with the edges not plainly marked.

On the other hand, as Gifford has pointed out, the clinical history plainly indicates an early optic neuritis, while the subsequent story of temporary improvement in sight, late, well-marked atrophy of the post-neuritic type, makes it difficult to conclude otherwise than that the action of the poison is chiefly—probably in the first instance—on the axial fibers of the nerve itself.

He has never seen a case in his own practice, except a very doubtful one, in which the diagnosis lay between hemorrhage into the brain and possible methyl alcohol poisoning. Here the patient presented—after a spree—precisely the same general local symptoms—with similar fundus changes—just portrayed, but there was no convincing evidence of his having drunk liquor charged with methyl alcohol.

DR. F. C. HOTZ saw these cases in his clinic. They are especially interesting, because the methyl alcohol was introduced into the circulation through the lungs, not through the stomach. He believes they are the first observations of the kind brought to our notice. At least, among the small number on record of toxic amblyopias due to wood alcohol, there are none in which the intoxication was caused by inhaling the alcohol. A day or two after the occurrence of blindness, both patients had been put under the care of Dr. Welcker, who found marked optic neuritis in both cases; the blindness was complete when he first saw them, and then the sight returned to a certain degree, but gradually grew worse again. If Dr. Holden's views were correct, that wood alcohol primarily affects and directly destroys the retinal elements, it would be difficult to account for this temporary recovery of sight, for the perceptive elements once destroyed make the return of sight impossible. On the other hand, we can well understand that a violent inflammation of the connective tissue of the optic nerve may interrupt, by pressure, the conduction of visual perceptions, so completely as to cause total blindness during the heights of inflammation, and yet vision may return when the inflammation subsides and the nerve-fibers are released from the paralyzing pressure of the swollen connective tissue. But as the neuritis is always followed by more or less shrinkage of the tissues, causing atrophy of the nerve-fibers, the vision gained is gradually lost again. Clinical facts, therefore, do not sustain Dr. Holden's views, but rather prove that wood alcohol exerts its injurious effects primarily on the optic nerves.

DR. J. ELLIOTT COLBURN saw a case in April. The man was cleaning some old furniture in an office building, where they were desirous of keeping the fumes from spreading over the building. He used the alcohol quite freely, and after five or six days he noticed that his vision was beginning to fail. A day or two afterward he called at the Doctor's office, had a very low vision and presented a picture of a very severe double neuritis, attended by considerable pain. He also complained of pain in the arm, while using the alcohol. The Doctor thought it might be due to a cold, but is since inclined to believe, from personal experience, that it was due to the absorption of the alcohol. The appearance was that of a typical neuritis. During May the Doctor had occasion to do some cleaning of furniture and used wood alcohol. He experienced the same pains in his hand and arm which the man had complained of. He thought it might be due to the unusual work, but after much more difficult labor, did not experience the pain; furthermore, on using the alcohol again, he experienced the same discomfort.

DR. HENRY GRADLE thought these two cases of methyl alcohol poisoning plainly showed that the trouble is a post-neuritic atrophy. On rather cursory examination it seemed to him that the retina presented a lessened transparency in its central area.

OCULAR AND ORBITAL DISEASE AND NASAL AFFECTIONS.

DR. H. GRADLE presented the relationship of ocular and orbital diseases to affections of the nose and its sinuses. His experience led him to criticise some of the communications on this subject as too generalizing. He maintained, however, that although the nasal etiology is not as common as some maintain, there are certain definite instances in which various orbital and ocular troubles occur as complications or extensions of nasal diseases, which point was illustrated by a number of clinical records.

DR. THOMAS FAITH has in a number of instances noticed the appearance of a temporary ciliary injection with considerable pain in the eye and tenderness in the ciliary region, occasionally accompanied by a hyperemia of the iris, and in one case amounting to mild iritis, following deep linear cauterization of the inferior turbinal body. The pain, as the patients expressed it, was like a severe toothache extending into the eye. The symptoms passed off in from twenty-four to forty-eight hours without necessitating any treatment except in the case of iritis, which subsided in about eight or ten days under the influence of atropin.

In another case which he chanced to see in the practice of a friend, a case of one-sided atrophic rhinitis following complete removal of the middle and inferior turbinal bodies, the cornea on the same side became opaque and degenerated in spite of anything that could be done. The absence of any other traceable cause, and the appearance of the eye symptoms at the same time as the beginning atrophy in the nose, seemed to point to the nasal trouble as the cause. He believes that in all probability the changes which take place are trophic in character. The mucous membrane of the nose is supplied by branches of the fifth pair of cranial nerves, as is the cornea and anterior part of the eye in general, and the changes which occur in the eye after division of the fifth are marked and characteristic of trophic changes, as well as loss of sensibility to cornea, iris and ciliary region.

In animals, where division of the fifth nerve has been made for physiologic experiment, changes occurred in the cornea even when it was protected by closing the eye, or oiled with an ointment. The cornea became completely opaque, followed by a gradual degeneration, which sometimes extended to the interior of the eye. The changes in these cases have reference to the nerve distribution; the changes in the nose affecting the nerves in that organ, from there extending to and affecting the branches which supply the eye, and particularly in the case last mentioned, amounting to a pure trophoneurosis.

Chicago Medical Society and Chicago Medical Examiners' Association.

Joint Meeting, Dec. 13, 1899.

RELATION OF MENTAL DISEASE AND RESIDENCE IN AN ASYLUM OR SANITARIUM TO LIFE EXPECTANCY.

DR. HAROLD N. MOYER read a paper with this title. Relative to life insurance examination, he thinks the blank forms might be improved by a form calling for family and personal history, to be filled out and filed by the applicant. This would give the examiner wider latitude in passing on the risk, and overcome the tendency of some to sink the spirit of the examination in the letter. The question found in many blanks, relating to residence in a sanitarium or asylum, is superficial; nearly all information regarding such residence is covered by other questions. The conditions leading to such residence are of importance. Insidious diseases of the nervous system not easily recognized in the early stages, are not the source of error that might be supposed, as these afflicted so frequently forfeit the policy by inability to pay premiums.

One class of sanitarium habitués, i. e., neuropaths, hysterics, neurasthenics, etc., do not have the risk increased by residence in such institutions, but rather diminished. Owing to the good care given themselves, the risk is not so great as that of vigorous middle-aged men who eat too much, drink a little, and work too hard. The prognosis of longevity in mild hysteria and acquired neurasthenia is favorable; in the graver forms they may accompany severe organic degenerations and in these the prognosis should be guarded.

A history of insanity rarely escapes notice. In all but a few forms, it materially tends to shorten life. A very small percentage of those afflicted with mania and melancholia die in the first attack, and prognosis to life and return of reason is usually good. A case need not be rejected because of a short residence in an asylum, but there must be careful study of all circumstances surrounding the attack, and consideration of a tendency to recurrence. These patients also, frequently lose ability to pay premiums long before the insurance accrues. The relation of mental diseases to certain organic lesions must not be overlooked.

The insurability of a confirmed epileptic is doubtful. A history of one or two convulsions in early life, or occasional attacks at long intervals, raises the doubt as to whether they were true epilepsy.

The most important nervous disease in relation to insurance is paretic dementia. The average duration of life after an attack is about three years. It is not the outcome of specific diseases, mental strain being the most frequent contributing factor; the slight importance attached to this by the applicant, however, causes it to pass without notice.

RELATION BETWEEN RECTAL DISEASES AND LIFE INSURANCE.

DR. WELLER VAN HOOK, on this topic, referred to the commoner diseases of the rectum—hemorrhoids, stricture, abscess, fistula, gonorrhea, ulceration, prolapse and carcinoma in their causal relation to one another and in relation to life expectancy.

EXAMINATION OF WOMEN FOR LIFE INSURANCE.

DR. DENSLOW LEWIS contributed a paper on the above subject, saying that life insurance is a business proposition. The basis of calculation is not perfection of health, but a standard. The average life probability of standard groups is the basis of insurance statistics. The perpetuity of life insurance and the reliability of actuarial computation depend on the determination of the standard. The prescribed examination of women fails to discover many important pathologic conditions which affect the risk and influence the standard. Dangers of child-bearing are now considered compensated by diminished exposure, more regular mode of life, etc. Increased moral risk is recognized in young divorced widows, and the influence of economic and sociologic relationship is appreciated. Gynecologic examinations should be made in every applicant to determine pathologic conditions not discovered by the usual form of examination, which was devised originally for the investigation of men. Hardening of the breast is a cause for rejection, unless the sequel of recent abscess. If the finger in the vagina can not touch the promontory of the sacrum, the conjugate diameter may be assumed to be sufficient for parturition. Lacerations of perineum and cervix are especially important when infected. Leucorrhea usually indicates infection which should be investigated. Infection is always a potential danger, for the limits of possible extension can not be determined. The differential diagnosis for insurance purposes is unnecessary. Tenderness in either fornix and any intrapelvic deviation from the normal condition, as determined by bimanual examination, is sufficient cause for postponement or rejection.

RELATION OF CHRONIC EAR DISEASES TO LIFE INSURANCE.

DR. J. HOMER COULTER restricted his remarks largely to chronic suppurative otitis media, saying that an acute suppuration of the ear will, if left alone, tend to become chronic, and many cases improperly treated will tend either to seriousness or chronicity; hence a complete and fully detailed report of the case is necessary in examining an individual for life insurance. Medical directors generally do not accept an applicant for insurance, at ordinary rates, who gives a history of chronic or repeated attacks of acute inflammatory affection of the ear. If applicants be entirely free from attacks of tinnitus, vertigo, headache, disturbance of vision, or itching in the ears, for a period of seven years, then they may be considered safely insurable so far as the ears are concerned.

Laryngological Society of Maryland.

This Society was organized on December 13, with the following officers: president, John N. Mackenzie; vice-president, Samuel K. Merrick; treasurer, John R. Winslow; secretary, Aughlett Hardcastle.

LAST ILLNESS OF WASHINGTON.

The opening was signalized by a discussion of the last illness of Washington, begun with a historic address based on two statements by the physicians, one a history of the case signed by Drs. Craik and Dick, and printed in the *Baltimore Federal Gazette* for Dec. 26, 1799; the other an article by Dr. Dick, written in 1808 for the *Philadelphia Medical and Physical Journal*. A private letter of one of these physicians was also quoted. The disease appears to have been an acute edematous laryngitis due to a cold caught while riding on his estate in bad weather, on Thursday, Dec. 12, 1799. On the following day Washington complained of hoarseness. Before dawn of Saturday he aroused Mrs. W., and said he was ill, but would not let her summon a doctor until daybreak. Then Dr. Craik, his intimate friend of fifty years, was sent for, who finding the patient in great pain had also Drs. Dick of Alexandria, Va., and Gustavus Richard Brown of Port Tobacco, Chader County, Md., summoned. In spite of their efforts he died that Saturday night, about 11 o'clock, twenty hours after he had told his wife he was ill. His death was due to strangulation. Of course it is easy to criticize the treatment, which no doubt contributed to the fatal result, by weakening the patient, for at least five pounds of blood was drawn in twelve hours, besides the calomel and antimony administered, the first bleeding being by the overseer before the doctor arrived. There was not perfect unanimity with regard to the treatment by the physicians, Dr. Dick soundly condemned the excessive blood-letting as terribly weakening, and advocated the operation of tracheotomy, a novelty which had been practiced a few times even then. The other two physicians, however, who were older men and naturally more conservative, voted the suggestion down, although one of them afterward acknowledged that this was a mistake.

DR. MACKENZIE closed the discussion by saying that it was hard to make a diagnosis after the lapse of 100 years, and unfair to criticize the attending physicians from the standpoint of present knowledge. If it was a simple acute laryngitis, tracheotomy would probably have saved the patient's life. Earlier attempts to show that the disease was diphtheria had been abandoned for want of evidence. Acute laryngitis was not definite a century ago nor a separate disease. He suggested that the death of Washington probably hastened the dissemination of this disease, as in 1808 it was first recognized as an independent affection. He gave to Dr. Dick the credit of first describing it, in an article on croup.

THE YELLOW fever hospital located on an island opposite Santiago de Cuba was burned December 20. Large quantities of hospital supplies were destroyed.

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SATURDAY, DECEMBER 30, 1899.

OWING TO the large amount of extra space demanded by the index to the volume of the JOURNAL which ends with this number, it has been found necessary to curtail all, and omit some, departments from this issue. This is necessary, yet, notwithstanding the fact, this number of the JOURNAL contains one hundred and twenty pages.

THE INDEX.

The index accompanying this number of the JOURNAL is an attempt to cover the medical literature of the United States and Canada for the past six months, as we have been able to follow it. Besides the "General Index," which embraces the titles of all articles, editorials, society reports and miscellaneous matter contained in the volume, we include: 1. An index of certain departments. 2. An "Index of Authors:" In this, following the author's name, is the number of the page on which may be found the title of the article and the name of the journal in which it is published. After the matter is set up in cold type we see where improvement can be made, and it is our intention in the future to further the value of the index by not only giving the page reference, but also the paragraph number given the article in our weekly list of titles (Current Medical Literature), thus facilitating the finding of an author's source of publication. 3. In the "Index of Titles of American Current Medical Literature," cross-indexing is limited, though used as freely as we thought necessary. While we realize that the index is far from perfect, we feel confident that it will be found to be a great help to those who desire to look up the recent literature on any subject. It is a nearly complete index medicus of American medical literature, for the period covered. The "General Index" follows a somewhat different plan from that in former volumes, in that it does not include "Book Notices," "Deaths and Obituaries," "Discussion," these departments being separately indexed, as heretofore, but placed by themselves rather than in the body of the "General Index." Attention is called to the suggestions relative to the use of the index, printed at the head of the "General Index."

ETIOLOGY OF CEREBRAL DIPLEGIA.

The amount of attention which infantile cerebral palsy is receiving at the present time is a fair index to the importance of the subject. As but little is to be obtained by treatment of the condition when once established, special interest rests on its possible etiology and pathology, thus enabling us to employ preventive measures. One variety of infantile cerebral palsy known as diplegia is now receiving considerable attention. Dr. James S. Collier[1] has presented an excellent article on the subject.

The current theories upon the etiology and pathology of cerebral diplegias are many; the reason for this rests in no small part on the fact that we do not see the initial lesion of the affections. Autopsies on long existing lesions show diffuse and lobular scleroses which are undoubtedly secondary. It is probably true that the congenital predisposition plays an important rôle in the etiology of the affection, and that many of the so-called causes are really excitants only. Of all the numerous causes alleged, morbid maternal states during pregnancy are held in first place by most clinicians, while hereditary factors, abnormalities of birth and postnatal conditions take second place in causation. Collier submits that MacNutt's demonstration of a meningeal hemorrhage in certain diplegic cases can not be urged to be the principal cause in all cases in the light of recent research on diplegias. As to the immediate etiology or the etiologic-pathology, much evidence is now shown that the lesion may be initial neuronic degeneration of the pyramidal cells of the cerebral cortex, while the lesions formerly found by older investigators are secondary to the primary lesion of a cellular degeneration. The citation of the findings of such lesions by some authors, and the early changes of the gray matter in cases reported by Collier, certainly prove much for the theory of primary pyramidal cell dissolution. Possibly the immediate excitant to this neurotic degeneration may lie in some toxic element. Further careful studies into the etiology and pathology of infantile cerebral palsies may soon be of some practical benefit in prophylaxis of this unfortunate affection of children.

FATAL DIABETES MELLITUS IN THE SEQUENCE OF DIABETES INSIPIDUS.

It may be considered an open question whether diabetes insipidus and diabetes mellitus represent different phases of the same disease, but their invariable con-

[1] Cerebral Diplegia, Brain, vol. xxii, part iii, p. 373, autumn number, 1899.

sideration separately indicates that they are looked upon as independent affections. Nevertheless, it does not seem difficult to conceive that a lesion of certain extent or intensity might give rise to increased secretion of urine alone, and that the same lesion, though of greater extent or intensity, might give rise, additionally, to the presence of sugar in the urine, with the other attendant phenomena of saccharine diabetes. Instances of conversion of one form of diabetes into the other are rare, but a case has recently been placed on record by Blackett[1] in which diabetes mellitus developed in the sequence of diabetes insipidus. The patient was a man, 54 years old, who had had a severe attack of influenza, had been overworked, had suffered a profound shock from the sudden death of a friend in his presence, and had worked hard rescuing life and saving property from a fire. Soon after the last event, increased thirst, debility, and polyuria appeared. Frequent urinary examination failed to disclose at this time the presence of either albumin or sugar. The specific gravity of the urine varied between 1002 and 1006. Under careful treatment improvement took place, but after a temporary resumption of active work lassitude and debility reappeared. The patient now gradually grew worse, and finally coma developed. It was discovered that the urine had a specific gravity of 1026 and contained sugar in large amounts. Death occurred in the course of thirty-six hours.

"CHRISTIAN SCIENCE" AND DEATH CERTIFICATES.

The status of a "Christian Scientist's" patient in relation to life insurance was taken up some time ago by a life insurance journal, and certain aspects of the case discussed. The general conclusion was that the decision rested with the company as to whether or not it would be satisfied that the deceased had not defrauded it by neglect, or whether the case could be considered one of suicide or homicide. It was assumed that the "Christian Scientist" could not legally give a certificate of death that would be accepted by the registrar of vital statistics, and that the company would have the finding of an inquest in such cases to guide its action. In certain states, however, "Christian Science" has been recognized as a mode of healing, if not directly, by implication, in excepting its practitioners from the penalties of the law for illegal practice of medicine. In such, what is the status? Usually we may admit that the Eddyite will withdraw from the case early enough to have a regular doctor called in, who, if too late to do good, may commit himself so far as to state the cause of death. Dowie's Zion is, we believe, equipped with an irregular but certificated doctor-adherent who has regularly stultified himself both professionally and as a "divine healer" in this way. What, however, can a pure C. S. D. do, believing, as he claims to, that there are no such things as disease and death, when he finds himself unable to evade the giving of a death certificate? Can he say, as the youthful relative of a victim once did, that the late departed believed herself dead so strongly that they had to bury her? We have no doubt their metaphysics would be sufficient for their own needs in the case, but whether they can, without collusion, satisfy the demands of the law is another story. The fact that the delusion is so wide-spread and includes among its dupes so many of influence in legal circles is probably the reason why we have not heard more from it in this particular connection.

[1] Lancet, Nov. 25, 1899, p. 1433.

"THE TREATMENT OF CANCER BY ITS OWN TOXINS."

Of the extremes to which even medical men may go, illustration is afforded in a communication presented before a recent meeting of the Section on Obstetrics and Gynecology of the N. Y. Academy of Medicine, and dealing with the treatment of cancer with its own toxins[1]. It is proposed to give by the mouth, twice or thrice daily, virus obtained by curettage from a carcinomatous new-growth and mixture with perfectly pure vegetable glycerin, and trituration and separation. Subcutaneous administration had appeared irritating and useless. A strict regimen must be observed, especially including avoidance of alcohol. It was stated that some of the results have been encouraging, pain being relieved, the general health improved, and the progress of the disease retarded. To an unprejudiced mind it would appear that such results as have been obtained may reasonably be attributed to suggestion, pure and simple. There is no reason to believe that any antidotal action is secured in the manner described. In fact, evidence is yet wanting that an antitoxin to carcinoma exists, but granting that it does, it would be sought when immunity and not infection is present. We know little of such immunity except that which so many of us exhibit in exemption from the disease, but of the significance and the potency thereof nothing can be said in the absence of knowledge of the exciting causes. The attitude of prophet is a thankless if not a precarious one, but we fear that not much can be hoped for from this latest suggestion in the therapeutics of carcinoma, which unfortunately carries with it the danger that hope of recovery without operation may be held out in some instances until it has become too late for the successful result that operation alone is capable of accomplishing.

[1] Journal, Dec. 7, 1899, p. 1502.

HOSPITAL ABUSE.

The question of abuse of hospital privileges is one that has agitated the medical profession for a long time, and it can not be settled on *ordinary* business lines. Of all pursuits, that of medicine is the only one that is ever willing and ready to give its services gratuitously when needed by those unable to pay. There is, therefore, all the greater reason why it should be protected from imposition. So general has the use of the privileges extended by hospitals become that what has been cordially granted the public as a charity and an act of philanthropy has come to be viewed by a portion of that same public as a right to be demanded. There is an impression among a portion of the community that the services of hospital physicians are paid for, and therefore that ability to pay professional fees need be no moral bar to application for free treatment. It is probable, on the contrary, that in addition to not being remunerated for this service, many honorable and competent physicians daily visit and treat more patients from whom they receive no fee than patients who pay for the service rendered. It seems likely that at least a consid-

erable number of those who receive free treatment in hospitals could pay their professional attendants. This is wrong, but the remedy can come with ill grace from the medical profession, for the practice of medicine is not a business in the ordinary sense of the word, and medical men, it seems, can not organize labor unions and issue black-lists and the like. The general public must come to a realization of the injustice of the situation and itself take the steps to secure and apply the proper remedy. The simplest corrective measure would be the interrogation of every applicant for hospital treatment as to his ability to pay for the services of a physician. and we have little doubt that it will be found that, after all, the sense of right and of pride of the community will be reached when it understands that it has been asking and receiving considerable to which it has in no way been entitled. In this connection the language of Dr. Weir Mitchell, in an address delivered recently at the opening of the Thomas Hoge Ward[1] of the Presbyterian Hospital, Philadelphia, is not inopportune as illustrating another phase of this important subject. Among other things Dr. Mitchell said: "All hospitals should be so managed that no man or woman should be allowed to come in and accept what the hospital can give without being questioned as to their being able to give something toward what they are to get. If a man can pay $1, $2 or $3 a week without distressing his future, he should be asked to do it. The present method is robbing the community of a large portion of its self-respect. A large proportion of the dispensary service of our great hospitals is dispensed with entirely too lavish a hand."

Medical News.

THE NET receipts from the Winona (Minn.) Hospital bazaar, recently held, were over $1000.

TWO SANATORIA for tuberculosis are planned in Spain, one at Porto Coeli and another in the beautiful Malaga Mountains.

THE COLONIAL Office of the British Government has at last given official recognition to the Liverpool School of Tropical Medicine.

TWO PHYSICIANS in Frankfort, Ind., have been prosecuted for failure to file birth returns in accordance with the vital-statistics law. One was fined $18.80, and the other was discharged on his oath that he had filed the required report, and had sent it in by mail.

AT A meeting in Indianapolis, Ind., December 14, the State Board of Medical Registration and Examination adopted a resolution providing that an applicant before the Board, from another state, shall not be granted a license on terms more lenient than the rules of the state from which he comes.

THE LATEST statistics confirm the "stagnation of the French population." For the last ten years the excess of births over deaths has only been 0.74 per 1000 inhabitants, while in the ten years preceding, it was 2 per 1000. These figures are even more unfavorable when it is considered that the number of deaths has materially decreased during this last decade.

RECENTLY the JOURNAL referred to a divorce suit on the grounds that one of the parties was a believer in "Christian Science," and so certain medical attention was not secured when needed. A similar case has been reported during the past week from Clinton, Mass., where the wife was the believer in this doctrine. She sued for $1,000 and separate maintenance. The judge refused alimony and placed the children in the custody of the father.

CIRCULAR letters have been addressed to Massachusetts physicians by the State Board of Health calling for information as to the histories of cancer cases, instances of supposed infection, cases due to heredity, etc. By this means it is hoped to determine definitely whether there is an actual increase in the cases of cancer and also something in regard to the nature of the disease.

FRAUDULENT ADVERTISING.—The *Berliner Aertze Cor.* relates that a local physician was recently sued for damages by a firm that had sent him bottles of a new "universal remedy," begging him to try it in his practice. No formula was enclosed. He returned it and wrote on a postal, requesting the firm not to send him anything more of the kind as he considered it fraudulent advertising. The lower courts sentenced him to pay ten marks damages, but the higher court acquitted him.

INJECTIONS FOR THE PLAGUE.—Baccelli's intravenous injections of sublimate in the treatment of general infections, such as syphilis, erysipelas, anthrax, puerperal fever and cerebrospinal forms of influenza, have proved so successful that he has suggested applying this method to the treatment of the plague, but had no opportunity to test it in Rome. Professor Terni of Messina followed his directions and found that animals inoculated with bubonic plague were invariably cured by these injections. The *Progress Médical* announces that Terni has left for Portugal, full of enthusiasm and hope in this new treatment of the plague.

PRACTICE IN FRANCE.—The French authorities decreed, last July, that the diploma of "letters and philosophy" was no longer indispensable for admission to the medical colleges and the acquirement of the right to practice medicine in France. Presentation of the four certificates of upper class studies in physics, chemistry, botany and zoölogy or general physiology is all that is required. The JOURNAL commented on this lowering of the standard at the time. The *Journal Officiel* now announces that this measure only applies to native students, and that foreign students admitted without the diploma of letters and philosophy are not entitled to the same privileges conceded to the holders of the French "scientific" diploma.

ORIGIN OF PLAGUE AT SANTOS.—The delay of the Portuguese authorities in announcing the presence of the plague at Oporto is responsible beyond the question of a doubt for the outbreak of the plague at Santos in Brazil. A number of mild cases of a suspicious disease were reported to the authorities of Santos by physicians, August 18, as suspicious, but as bacteriologic tests were negative, and as no source of contagion was evident, the cases were diagnosed as yellow fever, pernicious attacks with ganglionary infarcts or mere adenitis. Then came the announcement that there had been plague at Oporto since July, and it was recalled that sixteen vessels had arrived at Santos from Leixoes, a port within six kilometers of Oporto and closely connected by railway, between July 4 and August 14, and that there had been great mortality among the rats during the latter part of July. The bacteriologic tests of suspicious cases at Santos revealed the plague, October 18, when it was at once officially announced.

[1] Journal, December 16, p. 1562.

New York City.

AS THE result of a collision between an electric car and an ambulance belonging to Harlem Hospital, two physicians, the driver and a patient are suffering from severe injuries. The ambulance was demolished.

Philadelphia.

THE J. B. LIPPINCOTT CO., whose entire plant, except perhaps the plates, was recently destroyed by fire, at once opened offices at 624 Chestnut Street, this city, and arrangements are being made for a new manufacturing building, to be occupied during the reconstruction of their former premises.

Baltimore.

A MOTION was made in the supreme court, on the 18th, for a new trial in the case of Dr. George C. Worthington, convicted October 12 for causing a death by criminal operation.

THERE were 181 deaths in this city last week, the rate per 1000 being: white, 15.61; colored, 28; average, 17.39. The principal causes were: Consumption, 23; pneumonia, 18; diphtheria, 12; diseases of kidneys, 12; congestion of brain, 10; typhoid fever, 3.

Los Angeles, Cal.

HEALTH STATISTICS.

According to figures from the health officer, during the year there were 1641 deaths, or a mortality rate of 15.93 per 1000 inhabitants, using as a basis for calculation a population of 103,000. This is an increase of 40 deaths for the year over last year's total. Of these deaths, 256 occurred in the various hospitals; 189 in the County Hospital, which received patients from the entire county. There were 33 deaths from suicide during the year, 25 males and 8 females: 21 natives of the United States, 11 foreign born, one Mongolian and one African. Deaths of children under 1 year of age numbered 182, being 17 less for this age than last year. The causes of death were: specific infectious diseases, 287; diseases of the digestive system, 137; of the respiratory system, 447; of the nervous system, 131; of the circulatory system, 163; of the genito-urinary, 113; constitutional diseases, 127; violence and accidents, 104; miscellaneous diseases, 132. Of the 1641 deaths reported, 279 were natives of this city, and 150 of the three Pacific Coast states outside of Los Angeles, leaving 1212 from other parts; 1135 had lived here less than ten years. There were 289 deaths from pulmonary consumption, divided as follows: natives of Los Angeles, 13; natives of Pacific Coast states outside of this city, 19; from other parts, 257. Of the 289 persons, 206 had lived here less than ten years. Concerning smallpox, since Dec. 1, 1898, there have been in the city, 119 cases; 2 were reported prior to the above date, during 1898. There were 64 cases of variola and 55 of varioloid; 59 had been vaccinated and 60 had not been. Some of those reported vaccinated were not successfully vaccinated. There were 22 deaths, 7 being of the most severe form of hemorrhagic smallpox. No death occurred where the person had been successfully vaccinated previous to smallpox infection; 51 patients were quarantined and treated in their own residences, numbering 22 houses; 67 were removed to the smallpox hospital from 63 houses. The disease was introduced by tramps from Danby and Arizona and New Mexico. The chief cause of the spread was the delay in reporting one case in the southern portion of the city, and the concealment of another in the most densely populated portion. Of other infectious diseases, cases were reported as follows: diphtheria, 287; scarlet fever, 64; typhoid fever, 265; measles, 339. There were 34 deaths from diphtheria during the year.

New Orleans.

INTRASPINAL COCAINIZATION.

The Bier method of intraspinal cocainization was applied successfully in the Charity Hospital, here, on December 18, by Dr. A. Matas, assisted by Drs. F. A. Larue and H. B. Gessner, and Mr. Allen, interne. The patient, an Argentine *mestizzo* of 32 years, suffering from internal hemorrhoids, ulcerated, bleeding and excessively tender, had albumin and casts in the urine. A needle having been introduced in the median line, between the fifth lumbar vertebra and the sacrum, the entrance of the needle into the canal was readily confirmed by the escape of cerebrospinal fluid. Two doses of 1 per cent. normal salt solution of cocain hydrochlorate, each 1 c.c., were injected five minutes apart. Nineteen minutes after the first, an internal hemorrhoid was clamped, a groove made around it with scissors, and a ligature applied, and, following this, the distal portion was snipped off; all of this absolutely without any pain. Another hemorrhoid was removed later. Anesthesia of the lower extremities, the penis, scrotum, and perineum, the abdominal wall, the chest and, in fact, the entire body below the neck, lessening in a degree, however, from below up, was subsequently observed. The procedure was followed by the usual chill, fever to 103.4 F., nausea, occipital headache. Prof. Matas had previously—November 10—applied the method in the case of a colored man, aged 23 years, suffering from a tuberculous knee-joint: 1 c.c. of a solution of eucain B, in two doses, was injected through a needle between the first and second lumbar vertebræ. Although the entrance into the canal was confirmed by the escape of cerebrospinal fluid, followed by the usual systemic reaction, no anesthesia was produced, the quantity of eucain being perhaps insufficient.

Minneapolis, Minn.

DR. JAMES DUNN is convalescing, after a month's illness from a septic infection.

DR. A. A. LAW, who recently returned from the Philippines with the Thirteenth Minnesota, was married last week to Miss Helen Longee, of this city.

THE MEDICAL department of the University of Minnesota, notwithstanding its commodious buildings, is full to overflowing and the regents are asking the medical faculty how to reduce the number of students. Lengthening the course to four years, and elevating the standard of admission have been accompanied by an increased attendance. A new anatomic building has just been completed, and will be in charge of Prof. Chas. A. Erdmann, who has been recommended to the regents by the medical faculty, as successor to the late Professor Hendricks. This building is the most complete of its kind in the country, and will be devoted exclusively to the teaching of anatomy. A new clinical building has also just been finished, and is in charge of Prof. James E. Moore. The one will be devoted exclusively to the teaching of clinical medicine and surgery.

Atlanta, Ga.

DR. CHARLES BOYNTON was recently married to Miss Patillo, of Decatur, Ga.

ATLANTA has recently had a severe scare on the milk question. A number were lately made very ill, and all were found to be taking milk from the same dairyman. A specimen examined revealed tyrotoxicon. There is now on foot an endeavor to establish a central station where all the milk will be examined before it can be distributed.

THE PRESENT Board of Health, which consists of both physicians and laymen, is trying to get established the position of medical health officer for the city, the incumbent to have supervision over all contagious and infectious diseases, and charge of a central bacteriologic and chemical laboratory.

LEGISLATION IN GEORGIA.

The osteopathy bill passed almost unanimously, at the recent session of the legislature, even in the face of unanimous protestations from the physicians of the state. One member, in support of the bill, said that if this system of treatment had been in vogue at the time President Garfield was shot, the bullet would have been found and extracted, thus saving our President from an untimely grave. Georgia is now "wide open" to all fads and sects and the legitimate physician will no longer find a decent field within the bounds of the "Empire State of the South." Another bill introduced by the representative from Atlanta, at the request of all the physicians of the city, was to enact a law compelling all medical colleges in the state to adopt a four years' curriculum. The bill met with instant defeat. The Atlanta College of Physicians and Surgeons, however, will almost certain to adopt this curriculum next year. [As we go to press, we learn the governor has vetoed the osteopathy bill.—ED.]

Correspondence.

Shall the Scope of the Pharmacopeia be Increased?

BOSTON, Dec. 19, 1899.

To the Editor: Among the many suggestions and remarks which the approach of the time of calling the convention for revising the Pharmacopeia is eliciting, the query why the sale of this book is so small among physicians often appears, and why they are so little acquainted with its contents and its merits. That such a condition exists is undoubted, but it is also true that there is a reason for it, and it seems to me, without yielding to anyone in my respect for the book in the position it is intended to fill, that the reason is a good one.

Dr. Long (JOURNAL, Dec. 9, 1899), in an article which tends in the same direction as my own thoughts, asks whether we—physicians—"are not shirking our duty when we allow pharmacal influence to predominate in the convention which directs its issue?" To this I would answer that, if medical colleges and societies send 85 out of 190 delegates, as they did to the convention of 1890, medical interests are fully represented. The details of the pharmacopeia are properly in the hands of pharmacists.

It is true, as Dr. Long says, that the Pharmacopeia originated in the needs of physicians, but that was at a time when a very large proportion were of necessity their own pharmacists. A well-known Boston doctor, whose practice was largely among the wealthier classes, used to say that there was no use in a physician pretending to be anything else; he always would smell of rhubarb.

But now the amount of information which the up-to-date practitioner is absolutely obliged to acquire has so enormously increased, without, so far as any one can see, his capacity having been correspondingly enlarged, that he must cut off all that does not necessarily come within his province. On the other hand, the processes and scope of pharmacy have been so specialized that the practitioner can have this part of his work done so much better than he can do it if he had the time, that the separation has taken place with great mutual advantage. The physician asks the pharmacist for a drug and expects to have him provide it pure, but probably not once in ten thousand times does he apply the pharmacopeial tests to see whether it is really so. It might have been premised that the pecuniary success of the edition of 1890 has been such that there is no financial reason for desiring to increase the sale of the next one, except that it could perhaps be afforded a little cheaper. The receipts have provided for much research in preparation for the coming revision and there is still a considerable balance unappropriated.

But it is desirable, in the interests of the medical profession, that its members should become acquainted with the official and authoritative statement of their pharmacologic instruments, and that they should be able to look to some disinterested source for information on the enormous number of new remedies—good, bad, and indifferent, honest and fraudulent—which are constantly thrust before them in advertisements and specimens, and in regard to which it is almost impossible that they should independently inform themselves. Information there is, if they have the disposition and the time to look for it, but each is much more likely to take what is offered him, buried as the truth may be among proprietary preparations and garbled pseudo-medical literature. The implicit confidence in the ignorance and credulity of the medical profession in regard to drugs, displayed by such hosts of advertisers, and evidently grounded on long experience, is a scandal and disgrace, a part of which might perhaps be averted by familiarity with a work in which no self-interest can be allowed to appear.

There are two reasons why the Pharmacopeia is comparatively unknown to the physician. The first is that it contains so much that he does not want and can not use; the second, that it does not contain the information for which he most frequently consults a book of reference, i. e., doses and new remedies, or sometimes the best forms of administration.

The pharmacologic ground which the physician wishes to traverse is now covered by two sets of books, among which are several of which American medicine and pharmacy may well be proud. Of these, the two dispensatories are the most comprehensive, and against them there is nothing to be urged except size and consequent expense. But the man who buys one of these has but little use for the pharmacopeia, which is practically included in them. The numerous and excellent works on therapeutics usually contain enough of pharmaceutic detail for ordinary use by the practitioner. All of these discuss non-official remedies.

It is with such works as these that the next Pharmacopeia must in some way compete, if it is to have any extensive sale among physicians, and the question at once arises whether it is for the interests of medicine and pharmacy to undertake this new responsibility or leave it where it now is, in private hands. There is certainly room for more than one opinion on this point. In regard to doses, it would not be advisable for the Pharmacopeia to state them in any such authoritative and absolute way as to relieve the physician of his full responsibility in any individual case, but usual or average doses might very promptly be given, and a statement of the amount of active principle contained in different preparations of the same drug. There are many most useful drugs now in the Pharmacopeia, whose chemical constitution is so illy defined that a short statement of the safe or proper dose is really nothing but a judicious summary of clinical experience. Such, for instance, is digitalis. Even more is this true of some of the most important and useful additions to the medical armamentarium; for instance, the whole group of toxins.

It may be said that if the Pharmacopeia once enters the wide and unsurveyed territory of the most recent investigation and discovery, it will at last find itself in a swamp of speculation, and standing on the same level with all sorts of absurdities and frauds. But it is to be remembered that medical practitioners and pharmacists are already forced to enter this region, whether they like it or not, and will most heartily welcome even a feeble and uncertain light of science which is at least distinguishable from a mere will o' the wisp, by honesty of purpose and impartiality.

A work occupying the position of the Pharmacopeia and possessing the qualities of disinterestedness, impartiality and freedom from individual prejudice, for which the method of its preparation and publication would be a guarantee, must be of the highest value to the medical profession and would meet with a warm reception therefrom.

Some simple additions to the book as at present arranged would not materially increase its size or cost, and could be made to cover the matter of dosage, but a consideration of non-official medicines would be another matter.

Would it not be possible to publish, under the auspices of the convention, two editions, to be called respectively the physicians' and the pharmacists' editions, using the same arrangement and the same text so far as appropriate to each, but having in the physicians' an appendix containing, in an abridgment, all that is positively known of unofficial drugs? For this appendix room would be made by the omission of a large amount of detail unnecessary and cumbersome for the physician.

In the pharmacists' edition, it might be unnecessary to put many articles which are not, and probably for many years will not be, subject to exact chemical and pharmaceutic tests of purity. Still, as most of these are now to a great extent for sale in the shops, it seems more practical for the authority in use by the pharmacist to take cognizance of them, even if unable to test and guarantee their purity and efficiency. Such an edition would be really an abridged dispensatory, and would be unnecesary for those who have the larger one. On the other hand, it could be sold at a much smaller price and could be more easily remodeled at short intervals than the more elaborate works.

In conclusion, although I am unworthily a member of the committee of revision, this letter embodies the views of no one except myself, and is intended as a suggestion rather than as an argument.

ROBERT EDES, M.D.

The Innocuousness of the Specialist.

CLEVELAND, OHIO, Dec. 19, 1899.

To the Editor: While it is perhaps natural that in general medical societies there has grown up a tradition that the chief

offices shall be held by a general practitioner or a general surgeon, there is room for doubt as to the expediency of adhering too rigidly to such a rule. Certainly it may be permitted a general practician to advocate that occasionally an office of some consequence should be bestowed on a specialist. This would tend to broaden the professional horizon and to unify the different existing branches of medicine. It must not be overlooked that the specialists, because of their specialism, are none the less members of the great profession of medicine. It is proper that they should not be permitted to monopolize the offices, for the reason that they appeal for support to the profession itself; but entirely shutting them out from the classes from which society officers are chosen infallibly tends to narrow the field of medicine. Nothing less than absolute catholicity may be practiced by the most liberal guild that graces modern civilization. To at intervals place a specialist in high office would have a decided educating influence. The specialists as a class are known to be quite harmless, and the timid need have no fear of the result of the innovation. Both in our small local and large state and national organizations we can afford to be a little more liberal in this respect. Indeed, in some conspicuous instances, and in certain localities the new custom here advocated has already taken root, and the fruit has not been unpalatable.

P. MAXWELL FOSHAY, M.D.

Deaths and Obituaries.

E. R. AXTELL, M.D., editor of the *Colorado Medical Journal*, died December 14, after a short illness, a victim to septic poisoning following an autopsy. At a joint meeting of the Denver and Arapahoe Medical Society, the Denver Clinical and Pathological Society, the members of the medical and surgical staffs of the Arapahoe County and St. Luke's hospitals, the following resolutions were adopted:

WHEREAS, Dr. E. R. Axtell has endeared himself to the physicians of Denver by his clean life, his gentlemanly and courteous manners and his devotion to duty and scientific medicines; and

WHEREAS, He has met with an untimely death before he had reached the zenith of his power and at a time when success was beginning to crown his efforts; and

WHEREAS, His death was the result of an infected wound received in the performance of his duty, we recognize in this sacrifice the highest ideal of man and hero; therefore

Resolved, That we engrave upon our records these resolutions as a slight token of our highest esteem, and forward to Mrs. Axtell our expression of deepest sympathy, with the assurance that "he who lives in the hearts of others is not dead."

J. T. ESKRIDGE,
LEONARD FREEMAN,
WILLIAM C. BANE,
F. E. WAXHAM,
F. H. MCNAUGHT,
J. M. BLAINE,
Joint Committee.

Dec. 14, 1899.

The Doctor was born in Washington, Ind., thirty-three years ago. He received his degree in medicine in 1888, and went to Denver in 1889, as an interne at St. Luke's Hospital. He was afterward, for eighteen months, superintendent of the Hospital. From the beginning of his career in Denver he was intimately associated with the teaching of medicine in the medical department of the University of Denver, for which institution he has ever had a large interest and a warm affection. He was for four years pathologist of the Arapahoe County and St. Luke's hospitals, and was also connected with the Colorado Cottage Home and State Home for Dependent Children. For the last few years he has been editor and owner of the *Colorado Medical Journal*, which has vastly improved through his energetic efforts. At various times he has been secretary of both the local and state medical societies, and was for about eight years the secretary and treasurer of the faculty of the medical department of the University of Denver. He long cherished an ambition for an appointment on the medical staff of the Arapahoe County Hospital, though he was already its pathologist, and he had just entered on his first service on this staff, when, in his capacity as pathologist, he conducted an autopsy to which we must attribute his untimely death.

"His life and death have most beautifully and perfectly exemplified the feelings, purpose and motives actuating the highest type of physician."

RESOLUTION ON THE DEATH OF DR. CHASE.

Concerning the recent death of Edward W. Chase, M.D., Omaha, Neb., the Omaha Medical Society has adopted the following:

WHEREAS, Dr. Edward W. Chase has, by death, been removed from his association with this Society; therefore

Resolved, That we, the members of the Omaha Medical Society, entertaining the highest regard for his ability as a physician and the estimable personal qualities with which he was abundantly endowed, deeply regret his death, so early in life, and feel that we have lost a talented companion, and that the society has been deprived of the aid of one who always performed his duty with consummate ability and conscientiousness.

Miscellany.

X-Ray in Medical Diagnosis.—In Williams' article on this subject, the last three lines of the foot-note on page 1209 (JOURNAL, November 11), should read: "To prevent the marks from being rubbed out when the skin is washed with an antiseptic for operation, a stick of *nitrate of silver* diluted with nitrate of potassium may be used instead of the crayon, or the ordinary marks may be retouched with tincture of iodin."

Electric Thermophore for Local Application of Heat.—S. Salaghi describes, in the *Ztft. f. Diet. u. Phys. Therap.*, iii, 5, the principles of the local application of heat, and states that excessive heat is tempered by the perspiration, so that even 100 to 140 C. does not actually represent a much higher temperature for the part than a lower degree with less perspiration. He therefore considers his electric thermophore fully as effective as the complicated apparatuses generating extremely high temperatures. It is very simple, merely a coil of wire in a folded asbestos cloth, connected with any incandescent light service—light, simple, neat, convenient.

Story of a Comma Bacillus.—In that book of stories of the sea, by Mr. Morgan Robertson, entitled "Where Angels Fear to Tread," there is one which must stand out as a source of perpetual delight to physicians. It has been aptly named "The Battle of the Monsters," and might easily pass under the subtitle, "An Extract From the Life of a Spirillum of Cholera." The tale begins with the following clinical note: "John Anderson, Ward 3, Room 6. August 3. Arrived at hospital in extreme mental distress, having been bitten on wrist three hours previously by dog known to have been rabid. Large, strong man, full-blooded and well-nourished. Sanguine temperament. Pulse and temperature higher than normal, due to excitement. Cauterized wound at once (2 p.m.), and inoculated with antitoxin. As patient admits having recently escaped, by swimming ashore, from lately arrived cholera ship, now at quarantine, he has been isolated and clothing disinfected. Watch for symptoms of cholera. August 3, 6 p.m.: Microscopic examination of blood corroborative of Metschnikoff's theory of fighting leucocytes. White corpuscles gorged with bacteria." The hero, a comma bacillus of Koch, is compelled to witness a naval battle between the assumed germs of rabies and the blood-corpuscles. The enemy, in the persons of the bacteria of hydrophobia, have already killed many of the red corpuscles when the leucocytes bear down on the scene like line-of-battle ships, and in their turn the victors are put to rout. No quarter is given on either side, nothing save death seeming to satisfy the rapacity of the combatants. In spite of the fact that this unique encounter occurs within a blood-vessel, which might be likened to a river, the salty master-hand of the author compels you to believe that you are in the midst of a monster naval conflict. When the smoke of war has blown over and the leucocytes are resting serenely on their laurels, a delicious bit of comedy comes to relieve the somber scene. The amazed onlooker left his point of vantage and concealment, and sailed within hail of the conquerers, rudely breaking in on their scientific conversation. The magic name of Koch had attracted

his attention and aroused his egotism. "Koch," he answered eagerly and proudly: "Oh, I know Koch; I've met him. And I know about microscopes, too. Why, Koch had me under his microscope once. He discovered my family, and named us the comma bacilli—the spirilli of Asiatic cholera." They backed water in silent horror and then closed in on him. Nothwithstanding his pleas for mercy, he was ruthlessly slaughtered. The concluding clinical note, *in re* John Anderson, August 18, is: " As period of incubation for both cholera and hydrophobia has passed and no initial symptoms of either disease have been noticed, patient is this day discharged, cured." Mr. Robertson has indeed well shown that, give him but a taste of salt air as a tonic, he can study human and bacteria nature, and tell about it afterward.

Parturition Among the Eskimos.—Enlightenment and refinement among the people of a civilized and highly cultured nation have also attendant evils. It has been said that the higher the development of the human system, the more sensitive it becomes toward pain. Can it be that this rule holds good in the resistance to shock? Does the higher development of the system lessen its resistance toward the invasion of septic organisms? A study of parturition among people of a less favored region than the temperate zone offers some evidence that those who live in the latter suffer from invasion of pus germs to a greater extent than those of the arctic region. Gleaves, in a recent article in the *Pacific Medical Journal*, has written of this subject, having had the opportunity of being in attendance during an Eskimo labor. He writes that it is seldom that a "cablona" (white man) doctor is permitted to witness this trying ordeal. It is the custom among Eskimos not to be confined in *igloo* or house. The woman must go into the woods or brush, alone—no one being allowed to be present—and remain there with no food except a piece of dried fish for "five sleeps," when she is allowed to return to the *igloo*. Then she and her husband take a bath and change their undergarments. In the instance cited, Gleaves states that the birth of the child occurred in Alaska during January, when the temperature ranged from 30 to 40 degrees below zero, and while the mother, when found, was secreted in the brush in a snow pit, oval in shape, about two feet deep and six across. The only warmth obtained was from a smoky fire made with twigs. She lay on a reindeer skin, with no covering of any kind. "On my arrival at the parturient field I found the woman in labor on her knees, with buttocks resting on her heels, and having severe bearing down pains which came faster and faster and more severe until almost continuous when the bag of waters ruptured. Hemorrhage occurred, but she soon rallied again and expelled the placenta, whereupon she took a piece of sinew which had been prepared from the hock of a caribou, and ligated the cord as close to the umbilicus as possible, then severed the cord close to the ligature with a piece of serrated flint. She washed the babe in the snow, although it rebelled by kicking and squalling at such a cold reception. The woman wore a belt or a piece of thong to confine her 'parka' around the waist, and to it was fastened by short deer-skin thongs, bits of ivory, buttons, leather bags in which she kept tobacco, matches and other small articles of value. After the snow bath she placed her babe underneath the folds of her 'parka,' which is the usual place of the young Eskimo, and proceeded in a bent over position with a staff in hand, stepping slowly and laboriously, leaving a trail of blood, to another snow pit about fifty feet away, which had been prepared. She would not remain any length of time at the place where the babe was born for it is considered unclean." The mortality of both mothers and babes is said to compare favorably with our own death-rate.

Remarks on Jacksonian Epilepsy.—In *Brain* (London, December), J. S. McKendrick discusses the history, physiology and pathology of Jacksonian epilepsy, and describes a case of so-called toxic epilepsy. The special interest recently attached to the study of the so-called toxic cases justifies us in quoting the author quite fully. The patient, Mrs. E. McG., aged 38, was admitted to the Glasgow Western Infirmary, complaining of "fits." She was free from nervous disorders until suddenly, one year previous to admission, she lost consciousness and had a single, ordinary epileptic fit. The second occurred six months afterward. Subsequent seizures were frequent, lasting fifteen to twenty minutes, and these early ones always produced unconsciousness. Three months ago, after one of these attacks, she remained unconscious for five days, during which time there occurred about twenty fits; on recovering consciousness there was a noticeable weakness (paresis) of the right arm and leg. She remained free from the fits for some six weeks, when a seizure of a *different kind* developed, which recurred almost every ten minutes, corresponding almost entirely with those occurring throughout the rest of life. There was no loss of consciousness, but during the period it lasted and for some time afterward, there was complete loss of speech, strange sensations in the throat, the head drawn over to the right side; the right arm and leg were thrown into violent, jerking movements, the duration two to three minutes; the general health was good, and the paresis, which developed some months before, cleared up. The limbs of the right side were as easily controlled as those of the left.

Later the patient became worse, the convulsions were unilateral, confined to the right side, although in one fit the muscles of the face and arm of the right side seemed to participate in the spasm. The eyes first rotated to the right, then the head rotated to the same side, with slight clonic movements of the muscles. The right arm was next affected, and lastly the right leg. Consciousness was present, and aphasia. Before death, a distinct paralysis of the muscles of the face, arm and leg on the right side developed, also complete anesthesia of the right side of the body and partial of the left arm. The post-mortem of the brain disclosed nothing abnormal. The kidneys *disclosed a cortical nephritis!* In a critical discussion of the symptoms, McKendrick explains the conjugate deviation of the eyes and head to the right side by supposing an irritation of that area which lies immediately in front of the truly motor zone, and as a result the nucleus of the sixth nerve of the right side was irritated, which produced contraction of the right external rectus, directly and indirectly, through the communicating fibers from the nucleus to the third nerve and spinal accessory of the opposite side, produced contraction of the left internal rectus, and left sternomastoid, although the right inferior oblique muscle also probably contracted. He considers this area was the first to become irritated, and, owing to its physiologic situation, this fact accounted for the convulsive seizures that depended on irritation of the neighboring areas for the face and upper extremity. The hemiplegia occurred in an irregular fashion and with suddenness. It is improbable that there were actual hemorrhages in this case, but it is likely that after the more severe convulsive seizures, the vessels in the neighborhood of the left motor area became contracted, and a congestion resulted, allowing of a greater disturbance to the nutrition of these motor nerve-cells. The aphasia he considers to have been a true aphasia, the result of severe changes in the speech-producing center on the left side of the brain. Loss of consciousness is common to this form of epilepsy, but the *disturbances of sensation*, the right-sided analgesia are of interest in this case in the absence of syphilitic history; it probably depended on certain changes that had taken place in the communicating fibers that connect the tactile centers with those of the motor region.

The symptoms were in harmony with our knowledge of unilateral convulsions depending on an irritation starting at a definite point in the motor area and spreading from that region to the parts around in definite order.

The irritation started in the area for lateral deviation of the eyes and head, passed across to the center for the face, interfering with the communicating fibers that had to do with tactile sensibility and the speech-producing center, then passed up the fissure of Rolando to the center for the arm, then for the leg.

Further, discussing the two possible theories as to the real cause of these convulsive seizures, viz., chemical (toxic) and vasomotor, he inclines strongly to the former, and concludes by saying that although we might possibly have had a *reflex* Jacksonian epilepsy in this instance, from the cessation of the earlier series of fits, and the occurrence of an acute nephritis, and consequent absorption of the toxic urinary elements with the blood, *a toxic Jacksonian epilepsy* occurred, depending on the action of these elements on the old standing susceptible left motor area of the brain.